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ACROSS THE SAHARA
BY MOTOR CAR : FROM
TOUGGOURT TO TIMBUCTOO
By GEORGES MARIE HAARDT AND
LOUIS AUDOUIN-DUBREUIL. *With an
Introduction by M. ANDRÉ CITROËN. With
Illustrations by BERNARD BOUTET DE MONVEL*

TRANSLATED FROM THE FRENCH
by E. E. FOURNIER D'ALBE



D. APPLETON AND COMPANY
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TO
THE MARTYRS
OF SAHARIAN EXPLORATION

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TRANSLATOR'S PREFACE

THE Sahara, the world's greatest desert, covers $3\frac{1}{2}$ square million miles in the northern half of Africa. It is not a mere sea of shifting sand. It contains mountains with peaks 8,000 feet high, covering as much territory as the Alps. Its mean temperature is not excessively high. It is not the ancient bed of an ancient sea, but a stretch of land dried up by its peculiar geographical situation.

Since the Anglo-French agreement of 1904, the Sahara has practically become a French preserve, though Captain Haywood crossed it from Gao to In Salah in 1910. The French are sinking artesian wells, and planting the desert with alfa grass and aspen-poplars. With their absence of colour prejudice they often succeed in imparting to the natives a feeling of loyalty towards France where another race might fail.

By one of those daring combinations of scientific imagination and engineering skill which have so often led them to success, they have now bridged the desert from north to south by means of small caterpillar cars, a cross between the motor car and the "tank." It is a remarkable achievement, and the

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greatest forward step towards the conquest of that vast wilderness since the introduction of the camel.

It is bound to have profound results in the development of the African continent, and the vivid narrative of the commanders of the expedition will charm English readers as it has fascinated their own countrymen.

E. E. FOURNIER D'ALBE.

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INTRODUCTION

By ANDRÉ, CITROËN

WHEN my two friends, the authors of this book, asked me to introduce their work to the public, my first impulse was to say No. "Your request is very flattering," I said, "but what claim have I to do so? If you wish for a preface, why not apply to one of those gifted writers whose noble object since the war it has been to make our incomparable African domain known and loved?" And I mentioned some illustrious names.

"If our book had a purely literary object," said Haardt and Audouin-Dubreuil, "we should gladly solicit the sponsorship of Pierre Benoit, the brothers Tharaud, of Louis Bertrand, of André Chevrillon, or Alfred de Tarde. But in our opinion it is more complex, or at least more special. Undertaken with a definite utilitarian object, viz. the search for a practical link between Algeria and French West Africa, the Touggourt-Timbuctoo raid is the result of a whole group of patient studies and searching mechanical tests. It is not right that only the picturesque side of the trip should attract the reader's attention. The hum of our motors must always mingle with the splendour of the scenery and with the memories evoked by it. That hum has a beauty of its own. It is the song of progress, the rhythm of human

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effort chanting its victory over the elements. Our great desire is that the story of our trip should be entered in the golden book of French industry. But if that is to be so, there is something wanting in the pages we have written. We have seen the Sahara and the Soudan as travellers delighted with their vast horizons, interested in the customs and history of their inhabitants, but we have said too little of the technical side of the expedition, of its origin, objects, and means. Nor could we have done justice to these ourselves. We thought that this task was incumbent upon you, as the originator of the Caterpillar Car and the resolute and confident organiser of the rough journey by which this new engine was to demonstrate authoritatively what could be expected of it. What we ask of you is not so much a preface as an introduction containing all those particulars of the genesis of the expedition which we have not been able to furnish ourselves."

Those were the arguments advanced by Haardt and Audouin-Dubreuil. It is for the reader to judge whether I was right in acceding to their request. May I add that another argument was added to theirs, one of a more personal appeal, which overcame my last scruples? To accept the invitation to write these lines meant an occasion of fulfilling towards the same men an urgent duty of affection and gratitude in making known, even at the price of hurting their modesty, all the reasons which led me to entrust the fate of the trans-Saharan raid to them.

Georges-Marie Haardt, the general manager of my factories, has been my collaborator for fifteen years. Profound sentiments of friendship have at-

tached me to this ardent spirit, devoted to the ideal and always ready to espouse a noble cause.

Georges-Marie Haardt possesses in the highest degree the coolness, decision, clearness, commanding authority, and penetrating sense of control necessary in a true leader of men. I was sure that he would bring to the new task entrusted to him those remarkable qualities which have always guided him to success.

As for Louis Audouin-Dubreuil, we must hear those who knew him in the Far South of Tunis, where his bright intelligence and untiring energy were developed and strengthened for over two years, as aviation officer commanding a group of machine-gun cars attached to the Saharian squadrons.

A former cavalry officer, taking part in the boldest reconnaissances at the beginning of the war, particularly on the Marne, Louis Audouin-Dubreuil afterwards became an African knowing all the aspects and resources of the country. His previous attempts to penetrate into the desert by motor car gave him the highest qualifications for the task confided to him.

The first idea of a trans-Saharian raid was born in the war. It was the war which proved how necessary were the resources of our Equatorial Africa to the metropolis, not only in men, but in supplies of all sorts, from the oil-products of Senegal to the rubber of Guinea and the Congo. It also showed that all this wealth could not acquire its real value until the *bloc africain* was realised by the establishment of rapid, safe, and permanent communication between our various possessions in the Black Continent.

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The Sahara was the grand obstacle which had to be overcome before we could find a solution of the problem.

For a long time the camel was the sole means of transport across those immense desert solitudes which stretch diagonally across the African continent for 3,000 miles between the southern buttresses of the Atlas and the basin of the Niger.

The camel is surely a very precious animal, which



M. ANDRÉ CITROËN.

renders inestimable services, but it has unstable health and dies easily. Its normal burden cannot exceed 3 cwt., and it cannot be expected to cover more than 20 miles a day. A caravan composed of pack-camels takes six or seven months to go from Touggourt to Timbuctoo ; with *meharas*, which are to the pack-camel what the race-horse is to the cart-horse, it takes eight or ten weeks to do the same journey, and in this case it would be impossible to

transport anything but the strictly necessary in the way of food and camp fittings.

The economic and military problems raised by the great European conflict will not abide such slowness. To remedy it, railways have been planned for some time. They are, no doubt, the solution of the future, but the establishment of the trans-Saharan railway demands prolonged, complex, and costly preparation.

The automobile would offer a prospect of immediate, though perhaps not final, realisation. It is unnecessary to emphasise the importance of motor transport across the desert, and one may understand why no effort was spared to establish it.

In the course of the years 1916 and 1917 considerable efforts were made in this direction by the military authorities, who spared neither time nor money. The car with wheels can render appreciable local services in the northern regions adjoining the desert, where tracks have been made and are kept in repair, and where water stations are fairly close together. In the Erg and in the Hammada, on the other hand, its employment is very difficult on account of supplies, which required caravans of camels to such an extent as to make heavy inroads on our camel corps. The upkeep of the cars themselves was a very troublesome matter.

The first serious efforts to establish trans-Saharan motor traffic were made in 1916, under the influence of General Laperrine.

At that time two automobiles tried to make the first crossing of the 470 miles separating Wargla from In Salah. One of them had to give it up, while the other arrived at In Salah after a twenty days' journey

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“with the help of lifting jack, shovel, traction-camel and elbow-grease,” as Commandant Bettembourg spicily put it in an article published by *La France Militaire* on July 13, 1923.

In 1917, five more cars got as far as In Salah, the two first, under Captain Sigonney, in six days, the three others in twelve days with General Laperrine.

In 1918, in the month of December, Lieutenant Bellot conducted General Laperrine as far as Aoulef and got stuck 200 miles south of In Salah on a track leading towards the Hoggar.

In February and March of the following year, by order of General Nivelle, Commandant Bettembourg directed the Saoura-Tidikelt expedition, seconded by the squadron commanders, G. de Montandrey and de la Fargue, and by Flight-Lieutenant Louis Audouin-Dubreuil, specially attached to the automobile party.

The object of that expedition was a circuit including our most southern posts. Remarkably well organised and led, it was able to cover 1,700 miles, with seven cars keeping in perfect communication with three aeroplanes. But Commandant Bettembourg had to abandon a seriously damaged touring car at Adrar.

In 1920, General Laperrine and Commandant Vuillemin endeavoured to advance even farther. Thirty-two cars, thirty of them loaded with aeroplane material and supplies for the wireless post at Taman Rasset, travelled along the road between In Salah and the Hoggar, but only nine got there.

Colonel Romain has given in the *Revue Hebdomadaire* of September 1, 1923, an interesting account of this sporting exploit. “What this expedition

involved," he writes, " must be read in the official accounts of the *Service Automobile de l'Afrique du Nord*, in order to form a conception of it : Constant troubles, tire punctures, breaking of engine parts, sinking in the sand, tumbles into ditches, even radiators frozen by Saharan night frosts, nothing was wanting."

On the following 14th of February, the aeroplane of General Laperrine, who had started with that of Commandant Vuillemin for the Niger, having lost its way, some small lorries chosen from the detachment, and directed by Lieutenants Brunet and Pruvost, rushed along the prepared track from Taman Rasset to Tin Rhero. They returned without having found him. We know what happened. General Laperrine had met a glorious death in the middle of the Tan-esrouft.

" On the return journey," says Colonel Romain, " most of the cars had to be abandoned. They even lost a young brigadier, General Delvon, to whom on July 14, 1920, while the army of France was parading with banners unfurled before the population of Paris, a handful of brave *tringlots*, away in the desert, rendered the last honours. And it was with the greatest difficulty that two or three *camionettes* reached Wargla on July 17th.

" Such is the Odyssey of the relief expedition for the Laperrine-Vuillemin raid. From the point of view of courage and endurance, it was a *tour de force*."

Treasures of energy and self-denial were indeed lavished in the course of those first attempts. We can never have enough admiration for the officers and men who devoted themselves to the task. Un-

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fortunately, we have to confess that the results achieved were never very encouraging. All the reports drawn up at the time by the military chiefs and by serious technicians who had resolutely faced this fascinating problem arrive at the same conclusion.

Does this mean that the wheeled automobile cannot traverse the Sahara? No. A *tour de force* is always possible. It depends upon the prize to be gained, the power of the cars used, the ability of the drivers, and the supplies distributed along the route.

With a wheeled car one can certainly make far expeditions into desert country, and even make an attempt to traverse the Sahara, but these expeditions will always be exceptional performances due to the employment of equally exceptional means and difficult and onerous supplies arranged beforehand.

Such conclusions, though logical and reasonable, seem to deny the solution of an urgent problem. Must we, then, renounce the beautiful dream, once dreamt, of a rapid, economic, and constant communication between North Africa and French West Africa? It would be a pity, for the necessity of such a link becomes more obvious every day.

What mechanical means can we try?

Since January 1921 my works have constructed, with the help of the engineer Adolphe Kégresse, cars provided with apparatus designed to enable them to move outside the tracks over broken ground. The system adopted consists, in principle, of an endless rubber band, a sort of moving rail, supple and resistant, which unrolls under the vehicle. We have thus constructed cars capable of travelling over yielding ground without sinking in, and over ridged

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ground without deteriorating, as well as facing inclines of every kind, while making 25 to 28 miles an hour.

From the very first experiments no doubt remained. The problem of locomotion in snow and sand was solved.

Where a 10-h.p. car travelled easily by means of its caterpillar, it was necessary to put on a wheeled car a very much more powerful motor in order to overcome the same obstacles, and even this could not always be accomplished without the aid of camels and men ; which proved that the caterpillar could be regarded for the moment as the only practical, economical and sure method of Saharian transport.

It was then that colonials, military men, and explorers put forward the problem of crossing the Sahara.

The interest of such an experiment seemed to me so great that I considered it my clear duty to attempt it. The Touggourt-Timbuctoo expedition was decided upon. It remained but to organise it.

There was no lack of difficulties. But, however great it may be, the complexity of a problem must never make us conclude *a priori* and without an exhaustive study that its solution is impossible. In every enterprise, success is a question of method.

In preparing the crossing of the Sahara I was well provided. I was surrounded by a first-rate staff, full of energy and devotion, the same staff which had helped me during the war to seek and carry out practical solutions of very complex questions.

In the study of industrial questions—and the

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crossing of the Sahara by means of new, durable, economical and swift cars must be regarded as an industrial question—the first thing is to state the problem as clearly as possible. Then all the elements must be analysed, the smallest details must be foreseen, in order to reply to every question with rigorous logic, without admitting any hypothesis which has not been built on a proved and solid basis.

We had three tasks : to recruit and train the personnel, to prepare the material, and to trace out and organise the itinerary.

I have already introduced to the reader the two chiefs of the mission. I leave to them the duty and the pleasure of introducing their companions.

In the course of the winter of 1921-1922, eight caterpillar cars left for Touggourt on a trial trip, under the direction of Louis Audouin-Dubreuil. He was charged with testing the ability of the new vehicles to travel on the soil of the desert, determining their durability, and studying the conditions of travel and provisioning on the spot.

Several thousand miles of the most varied character were covered. Valuable observations were made on the way, allowing us to introduce useful modifications into the vehicles employed, especially in the matters of protection against sand and the consumption of water, which we were able to reduce to zero by adding condensers and sheaves of lateral wings on the radiators. Experience also involved modifications in the ball bearings and changes in the shape of the caterpillars ; in fact, a quantity of small details which

constituted as many improvements in the structure of our cars.

They were brought back to my works, where this final tuning up was carried out in the shops.

The trial trip of 1922 played the part of a real laboratory experiment, and once more we realised the valuable result of applying scientific methods to industrial problems.

The cars which carried out the actual "raid," five in number, were of the 10-h.p. type. The body was designed to give the maximum of comfort to the travellers. It had three seats, one of them reserved for a possible guide, boxes of provisions, camp requisites, maps, and munitions,—for in the desert one must think of defence, and the mission carried a rifle per man and three aeroplane machine-guns.

Each car carried, rolled up on its side, a tent which could be built up in a few minutes. Two of them, called "provision cars," carried from 60 to 120 gallons of petrol. The others had two tanks of 15 gallons each, making 50 gallons with the front tank. They also had two water tanks, holding 4 gallons.

The preparation of this material required minute care, ingenuity and patience. It is a pleasure to state that all the technical staff and workshops of my factories showed on this occasion a zeal and perseverance which greatly facilitated my own work of organisation.

While this work was being done, the itinerary of the raid was being prepared.

The Minister of War warned us of the dangers to

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which the mission would be exposed and wrote certain recommendations which we took care to utilise.¹

* It may be of use to reproduce the principal passage of this letter.

The Minister of War to M. André Citroën.

"I need not again emphasise the difficulties of a technical order which have appeared in the course of previous attempts to penetrate the Sahara by automobile (consumption of petrol, tires and air tubes, rapid deterioration of material, etc.). All information on these points will have been furnished to you by our central office, and you must have taken them into account in your calculations. The trials you are about to make in the Touggourt region will allow you to verify the accuracy of the latter, and to find whether it is necessary to increase the coefficients in view of the risks of the raid.

"On the other hand, I must call your attention to the dangers arising from the insecurity of the region to the south of In Salah, and more particularly between Taman Rasset and Kidal.

"You have been informed of a cablegram, dated November 22nd, by which the Governor of French West Africa announces that numerous *rezzous* roam at present in the region between Tin Zowaten and Kidal. Also, the Governor-General of Algeria has warned me that *rezzous* are observed to be mustering in Tripoli, and that others from South Morocco have been operating in the Adrar of the Iforas.

"On account of the expanse of the territory to be covered, of the distance between the permanently occupied posts, and the comparative weakness of the police units, there can be none but a very wide-meshed system of vigilance in those regions, and one of these *rezzous* could easily slip through for a surprise attack on the convoy, even in the daytime, and could get away before its presence could be signalled to the nearest security post.

"From the foregoing it is clear that the personnel of the mission must seriously consider the possibility of an attack. Consequently, it is advisable :

"(1) That the personnel be sufficiently numerous to organise a system of watches and to defend themselves in case of attack ;

"(2) That they be armed with machine-guns and quick-firing rifles."

The above letter alludes to a cablegram from the Governor of French West Africa which was communicated to us by the Colonial Minister with the following comments :

"I beg to inform you that M. Merlin, Governor-General of French West Africa, has considered it his duty to draw my particular attention to the dangers and difficulties of the raid you propose to undertake. He emphasises the absolutely desert-like character of the regions within his administration which you propose to traverse. He reminds you that in this zone encounters with *rezzous* are always to be expected, and he declines all responsibility for any unpleasant incidents which might take place in the course of this raid.

"I send you his cablegram so that you may be amply warned of the obstacles you will have to overcome if you wish to adhere to your scheme on your own responsibility."

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We had decided not to apply for any material aid, not to demand any subvention, and to look to our own provisions without the aid of camel caravans, but we always regarded as a valuable encouragement the moral help and information we received on a lavish scale from the public authorities.

I must not neglect this occasion of rendering warm thanks to the Minister of War, the Minister of the Colonies, M. Steeg, Governor-General of Algeria, and M. Merlin, Governor-General of French West Africa, for the readiness with which they from the very beginning gave the necessary instructions to all their officials to render us the most effective assistance. Thanks to them, Haardt and Audouin-Dubreuil met with the most cordial reception and the greatest hospitality throughout the journey.

I should be guilty of real ingratitude if I did not specially mention M. Boulagne, Director of the South Algerian territory, for the cordiality with which he placed his influence and his great experience at the disposal of my collaborators in the regions they had to traverse.

With a very complete set of documents, supplied mostly by the War Office, we then mapped out the itinerary of the mission, and, taking into account the mileage, nature of ground, and difficulties likely to be met with, we drew up a time-table which was afterwards rigorously observed.

Supply had to be organised with particular care. We had deliberately renounced the slow and obsolete method of camel transport. Two supply missions left on caterpillar cars, one from the north and the other from the south.

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The first mission, led by Lieutenant Estienne provisioned the posts of Wargla, Inifel, and In Salah (620 miles). The other, under M. C  ris, left Timbuctoo (whither it had proceeded by way of Dakar), had established stores at Bourem, Kidal, and even farther north at the wells of Tin Zowaten (about 550 miles).

This left 800 miles of unmarked territory to be traversed by the raiding cars, a distance which their reserve of petrol would enable them to cover with their own supplies.

As regards means of communicating on the way with the posts of the Sahara and the rest of the world, it must be confessed that the mission had none. Only wireless telegraphy could be thought of, and we had considered it. But a close study of the question led us to abandon it. Space was lacking in the cars for installing a wireless equipment, which would have been heavy and cumbersome. We preferred to keep all available space and weight for storing petrol. But we were kept in touch by means of the various radio-stations at the posts through which the mission passed. Thus, wireless messages could be sent from Wargla (120 miles), Inifel, In Salah (620 miles), Taman Rasset, and later from Kidal, Bourem, and Timbuctoo. All the papers, it will be remembered, published them, and so the public could follow day by day the stages of a trip which awakened a vivid interest.

Some days before the start, on December 1, 1922, I gave a lecture at the Inter-Allied Union, presided over by Admiral Fournier, and expounded the programme of the crossing of the Sahara in caterpillar cars.

I had the pleasure afterwards, on receiving the telegrams of the mission, to find that all the anticipations made at that lecture had been completely verified.

What this prodigious crossing of the Sahara was will be recounted faithfully in the fascinating diary of Messrs. Haardt and Audouin-Dubreuil.

We in Paris, who followed our friends with keen sympathy, and often with anxiety, lived in thought through all the joys and labours of their pilgrimage. When their telegrams arrived, especially after journeyings in uncharted and almost unknown regions, there was in my factories a moment of inexpressible joy and relief.

On January 4, 1923, we had the pleasure of receiving from Kidal a telegram announcing that a junction had been effected with M. de Cérès at Tin Zowaten.

And finally, on January 10th, came the bulletin of victory of Timbuctoo.¹

The crossing of the Sahara was accomplished in the conditions foreseen. The leaders of the mission, who had every latitude in fixing the mode and itinerary of their return, chose the Sahara way.

All their comrades agreed with enthusiasm to make the new test, to show that the success of the raid, far from being due to chance, was the result of methodical preparation and well-studied execution.

¹ I immediately sent the following telegram to my collaborators:

"At the moment when you enter the Pearl of the Niger after accomplishing with superhuman effort a Titanic work in the cause of humanity and for the triumph of French industry, I must express from the bottom of my heart the joy I feel. All my collaborators, directors, managers, foremen, workmen and employees send to you and all the members of the mission their hearty congratulations and the expression of their profound admiration. As for myself, no words can express my thought. Thank you all, thank you, and *Vive la France*."

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It was then that I decided to go and meet them, on cars of the same type but lighter and swifter.

I was accompanied on the journey by General Estienne, whose two sons had collaborated in the mission, by M. Kegresse, and by my wife, who wished to share the risks and joys of the expedition.

Our equipment served beyond our expectations. In three days we had reached the beautiful oasis of In Salah.

General Estienne, with two of the cars, made a reconnaissance towards the west, to inspect the valley of Saoura, 220 miles from In Salah, contemplated as a landing station for an air line from Morocco to the bend of the Niger.

We ourselves pressed on to the south, and at the wells of Tadjmout, in the Mouydir, where we had camped for the night, we had on the morning of February 24th the great joy of seeing the five cars from Timbuctoo dotting the horizon, so that I could rush to meet them and greet the conquerors of the desert !

After effecting our junction, we arrived together at In Salah.

Profiting by the greater speed of my cars, I left the mission and preceded it by a few days to Paris, where magnificent receptions were arranged in their honour.*

An expedition like the crossing of the Sahara in caterpillar cars is rich in significance. We may here examine its chief results.

* Reception at the Hôtel de Ville ; lecture at the Sorbonne, General Gouraud presiding ; gala evening at the Théâtre des Champs-Élysées, attended by the President of the Republic ; lecture at the Geographical Society, etc.

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The first and most obvious is that the link between Algeria and West Africa has received a practical realisation. Also, our Sahara posts are no longer isolated from each other and can co-ordinate their action. This means the security of the desert.

The caterpillar can also proceed with topographical surveys which are still incomplete and can finish the work in connection with the proposed railway. It will become the auxiliary and guardian angel of the aeroplane. The latter is always and everywhere tied to the ground. An air line cannot function normally unless its supplies are assured. Also, in case of need, we must be able to assist and repair a machine after a forced landing in desert country. This function being taken over by the caterpillar car opens the air route for trans-Saharan traffic.

An almost immediate consequence of the trans-Saharan raid will be the development of the grand tourism. For this it suffices to provision and mark out the itineraries.

I have endeavoured in this Introduction to expound the genesis and the industrial preparation of the trans-Saharan raid. The work that has been accomplished, the results already obtained and yet to be obtained, are now submitted to the judgment of the public. All those who have shared in the great feat which has proved the might of French industry and the valour of our countrymen will have their pride and their joy in it.

But their greatest satisfaction will be to be able to say that, thanks to them, an enduring edifice has been

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built, which will continue to yield results when they themselves are gone. And for them, that is the essential thing: "The builders will die, but the temple is built."

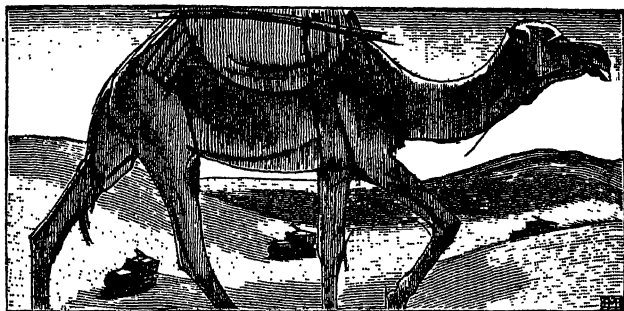
ANDRÉ CITROËN.

CHAPTER I

BEFORE THE START. THE MISSION ¹

Leave-taking at the Gare de Lyon—The Hour of Memories—A Letter from Touggourt—Our Purveyors—The Personnel of the Mission—Flossie, Explorer and Mascot—From Marseilles to Touggourt.

¹ The first part of this chapter is extracted from M. G. M. Haardt's notes. The remainder, as well as all the chapters following, is the joint work of the two leaders of the mission, MM. Haardt and Audouin-Dubreuil.



PARIS, *December 5, 1922, 7 p.m.*—What a lot of friends at the *Gare de Lyon* near the train which is taking me to Marseilles ! All my colleagues came to wish me good luck.

It is they who have worked together for months in constructing and perfecting the new machine which will enable us to try to effect a quick connection between Northern Africa and French West Africa.

Thanks to them we shall not only be attempting a grand task, but we shall be actually living a fascinating romance of adventure at a time when literature produces so many imaginary ones.

Is there not, in fact, something romantic and adventurous in the employment of these squat creatures with solid and adherent hindquarters, which yet possess an extraordinary and prodigious suppleness, and which will enable us to set out on our enterprise ?

These steel meharas, drinkers of oil and petrol, whose posterior members can adapt themselves to every sort of ground, might have been invented by Jules Verne or Wells as a pivot of one of their extraordinary romances.

Romance and adventure there is in plenty in that mysterious Unknown to which we are going, in those desert horizons which are beckoning to us. It is

Across the Sahara by Motor Car

with a sort of pride mingled with profound respect that I invoke the names of those who preceded us, especially those much too numerous ones whom a cruel but glorious destiny destroyed in the attempt and whose tombs we visit piously.

The train starts, and here I am rolling towards Marseilles.

My memory traverses the last few days. On December 1st there was my visit, in M. André Citroën's company, to the President of the Republic, who, in a long audience, informed himself minutely, map in hand, concerning all the details of organisation of the expedition, and expressed the warmest goodwill towards its members.

The next day, December 2nd, there was M. André Citroën's lecture at the Inter-Allied Club, under the presidency of Admiral Fournier, attended by M. Sarraut, Colonial Minister, and three Marshals, Joffre, Franchet d'Esperey, and Fayolle.

With his usual optimism, and the habit he has of succeeding in all his enterprises, M. Citroën almost asserted that we could in twenty days do the crossing from Touggourt to Timbuctoo. If only his anticipation is fulfilled ! But our machines, the minute preparation of the expedition, and the energy of my companions will no doubt triumph over every obstacle.

I am now re-reading the letters of sympathy from everywhere which have poured in since the Press has made our projected trip known to the public.

Many of these letters come from people in very humble stations. They are all the more precious, for they testify to the workings of imagination con-

Before the Start. The Mission

cerning our project, the romantic and adventurous side of which has appealed to the great public. I have kept some of them, which I cannot read without emotion. Here is a delightful one from a little working girl who tells me she will burn a candle for us at the tomb of her patron, Saint Geneviève. Here is one from a collegian who recalls in us the heroes of Jules Verne. And then there is that one from the country woman who writes : " My son, who has served in the spahis, tells me that the winter nights are very cold in the desert. Do not forget to take warm clothing with you."

My thoughts then go out to my companions of the mission who preceded me by several days on the other side of the Mediterranean. Here is a treasured letter sent to me on November 20th by Audouin-Dubreuil, who is already at Touggourt :

TOUGGOURT,
November 20th.

MY DEAR FRIEND,

This evening, to rid my thoughts of caterpillars and the haunting and captivating organisations of our raid, I went alone into the golden plain where the sun sets in an apotheosis of light.

Touggourt lay in a blue sheen. I thought of you, who will feel with me the simple and grand beauty of these sunsets.

On my return I passed through the quarter of the Ouled Nails to partake at Fatma bent Raïda's of the three cups of tea *à la menthe* according to the Arab custom. I told her that a great chief from Paris would come to visit her at the beginning of the next month. She asked me to warn her of your arrival so that she could perfume her house in good time and send for the most beautiful of the Ouled Nails. They will dance to the sound of the raïta, the ancient Berber flute.

Across the Sahara by Motor Car

But let us leave the Ouled Nails and return to our caterpillars. I may tell you that the provisioning expeditions have given excellent results, and that I have absolute confidence in the success of our raid. The caterpillar will conquer every obstacle, even the sombre plateau of Tademaït and the legendary solitudes of Tanesrouft.

I receive friendly telegrams from Commandant Duclos, the head of the oasis territory, and of the military authorities of the region of Timbuctoo.

We shall find among the Saharian and Soudanese officers the widest and most effective sympathy.

I hope we shall be able to start about the 10th.

Yours always sincerely, . . .

I have often re-read these sonorous lines full of enthusiasm, which, under an attractive poetical form, reveal a profound comprehension of that Saharan Africa which we are determined to sound to its deepest mysteries.

I must complete these first leaves of my scrap-book by telling about the provisioning parties alluded to in the letter.

Audouin-Dubreuil had already spent a part of the preceding winter in the Sahara, to see to the provisioning of the mission. Obscure though it was, the work carried out was already considerable. We had determined to do without the help of the ordinary means of provisioning in those countries, viz. the native and the camel. Ours was organised by two sets of caterpillar cars.

The first of these, leaving Touggourt under the command of Lieutenant Estienne, whom we shall afterwards take with us, was composed of seven cars. It organised the stores at Wargla, Inifel, and In Salah, and pushed forward into the Mouydir.

FLIGHT-LIEUTENANT
GEORGES ESTIENNE.



PAUL CASTELNAU,
GEOGRAPHER TO THE EXPEDITION.



ADJUTANT CHAPUIS.

Facing p. 36.

Before the Start. The Mission

The second, numbering only three vehicles, shipped in September at Bordeaux, landed the next month at Dakar, and driven by its own power to Timbuctoo, was to prepare our crossing of the Soudan by petrol depots established at Kidal, Bourem, and Tin Zowaten. It was commanded by our friend M. de Cérés.

Our base chief at Touggourt, M. Brull, had already rendered us the most valuable services, and was destined to render more. His was the rôle of the commissariat of an army in the field.

Everyone knows the fundamental importance of these depot services, the amount of labour, the constant expenditure of ingenuity and initiative demanded. I am happy to have an occasion here to express all our gratitude.

Our thanks are also due to the admirable company of mechanics whose absolute devotion to the common task was one of the greatest factors in our success : Maurice Penaud, Maurice and Fernand Billy, Roger Prudhomme, and René Rabaud had been chosen, not only for their sound technical knowledge, but on account of their loyal hearts, bright intelligence and finely tempered souls.

Our experience of them did not for a moment disappoint our expectation. On the contrary. In spite of the length of the stages, the uncertainty of meals, the short hours of sleep, and the difficulties of an exacting country, their spirit of gaiety and enthusiasm never failed.

The war revealed in the French army something very precious and touching which one may consider one of the characteristics of our race. It is the mutual

Across the Sahara by Motor Car

confidence and the spirit of collaboration, stronger and more subtle than the strict principles of discipline, which spontaneously link soldiers and leaders together in difficult circumstances. That is what we found in our keen helpers.

To their names must be added those of our provisioning parties : René Estienne, chief purveyor ; Fernand Lassarade, André Diot, Léon Villaumié, Henri de Sudre, André Pierson, Maurice Piat, Joseph Remillier, who assisted Lieutenant Estienne between Touggourt and Mouydir ; and Hinderholz, Wierflein, and Christmann, whom M. de Cérès had taken to the Soudan.

A word must be said about Lieutenant Estienne, our right-hand man. Georges Estienne is the complete type of a young Frenchman fond of adventure and novelty, who thinks that a man cannot better employ his mind or muscle, when he arrives at the age of equilibrium, than by wrestling with the difficulties of an undertaking at once audacious and useful.

Thus reasoned long ago the young cavaliers of the Middle Ages. Starting for the Holy Land, they left their bones there or came back furnished with some pompous title of nobility, more glorious than lucrative. If those good old customs still existed, we should gladly style Estienne Baron of Tademait and Count Tanesrouft.

Besides Lieutenant Estienne, the staff of the mission also included the geographer, Paul Castelnau.

M. Castelnau, a doctor of science, is the true type of the amiable savant in whom erudition has not killed the taste for sport. Besides his geodetic observations and the study of the soil, he had charge of the kinematograph department. It was he who had to turn



MAURICE PENAUD.



MAURICE BILLY.



ROGER PRUDHOMME.



RENÉ RABAUD.



FERNAND BILLY.

Before the Start. The Mission

the "picture mill," as one of our mechanics called it. Thanks to M. Castelnau, the mission brought back an ample harvest of pictorial documents of the highest interest.

We also brought with us as a guide and interpreter Adjutant Chapuis, of the Saharian Engineers.

Is that the complete list of our mission? No, we have yet to mention Flossie, our mascot.

Flossie is a Sealyham terrier belonging to one of us. She elegantly wears a costume of white wool well cut to her small figure. Before becoming a globe-trotter, Flossie was well known at the works on the Quai de Javel, where her good manners and her cheerful character had attracted all sympathies.

We had not intended to take her, fearing for such a little person the fatigues of so great a journey. It was at the express request of the mechanics that she, too, embarked for the crossing of the Sahara. Her master was already at Marseilles when he was asked for Flossie, and he had to telegraph for her to Paris. Flossie took the Riviera express and tasted on the Cannebière her first intoxicating draught of adventure. Flossie will go on the quest not only with perfect good-will and in solid health, but also with that dash of heroism which she had never yet exhibited for lack of occasion, and of enemies worthier of herself than the sparrows of the Tuileries.

To-day, Flossie deserves her place in history. She has become an explorer.

From Marseilles to Algiers, the Mediterranean was what it often is in the summer, choppy and disagreeable. Who was it that celebrated the customary placidity of this Blue Lake? Whoever he was,

Across the Sahara by Motor Car

he had not seen the short wave, foam-capped, hostile and fierce, which, driven by the mistral, thunders on the groaning poops of the ships off the Balearic Islands and Sardinia.

But since the remote days when the Classical Sea amused itself so cruelly in dispersing the conquerors of Ilion over its wide expanse, its evil reputation has been established. One must not really know it, or only have seen it sleeping under a clear May sky between Villefranche and the Bai des Anges, to believe in the sincerity of its caresses.

Algiers has become as accessible to the average tourist as Nice and Monte Carlo. Its more and more European aspect is much like that of the Riviera. May we say that one rather misses the other Algiers revealed by certain old prints of about 1840?

We need not have mentioned it but for the fact that we had the agreeable duty of thanking the Algerian authorities for the welcome they bade us and for the good grace with which they promised to facilitate our task.

From Algiers to Touggourt the railway journey is easy.

From Constantine onwards there is a progressive descent to the south in an ever-growing light and an ever-widening horizon. The normal railway line ends at Biskra. From Biskra to Touggourt a light railway crosses the palm-groves of Wed R'ir.

Touggourt is at the railhead, an immense green spot resting on the sand like an emerald set in gold. It is from there that we shall start in a few days across the Sahara towards the distant goal of our journey : Timbuctoo of the Soudan.

CHAPTER II

FROM TOUGGOURT TO IN SALAH. THE
GREAT OASIS OF THE DESERT. THROUGH
THE VALLEY OF WED MYA AND THE
PLATEAU OF TADEMAIT

The Viaticum of a Saharian—The Memory of Isabelle Eberhardt—The Caterpillar and the Camel—The Golden Key of the Desert—Under the Tent of Kaïd Adda—The Officers study the Caterpillar, the Natives admire our Weapons—The Earthly Sister of the Rainbow—Leave-taking of the Soldiers of the Desert—Far from Tracks and Wells—Camp on the Foot of the Downs—Five Degrees above Zero!—A Meeting—The Fairy Valley—The Fort of Inifel—On the Black Hammada of Tademait—Pre-historic Traces—The Gorges of Ain-Guettara—Wolves become Shepherds—The Drama of Thirst—The Djoun and the Mirage—The Voiture-Amirale—Dawn—In the Bordj of In Salah.



TOUGGOURT, *December 16th.*—We are ready to leave Touggourt. The following telegram has been despatched to France :

TOUGGOURT,

December 16th, 7.40 a.m.

The cars of the mission arrived at Touggourt a week ago. To-day they were fully overhauled and to-morrow, Sunday, December 17th, they will start for the South. Here is at last the end of long mechanical trials, route studies, long-distance distribution of petrol and the careful training of the personnel. Excursions into the environs of Touggourt have shown that every hope may be entertained. In the distance is our goal, Timbuctoo, the queen of the Soudan, which we shall reach across the desert, always on French soil. To-morrow we shall attempt the first stage, Touggourt to Wargla.

HAARDT AUDOUIN-DUBREUIL.

December 17th.—It is 3.30 a.m. Touggourt sleeps in the cold night, a Saharian night of December, frosted with moonlight. The palms are motionless, like a heavy and costly black velvet drapery thrown across a sky full of stars.

The last preparations for departure are made in religious silence, emphasised, but not destroyed, by the noise of the engines which turn slowly, with an almost animal rhythm, as if our cars were strong

Across the Sahara by Motor Car

animals conscious of having to put forth great efforts and gathered their breath for the coming tussle.

At 5 a.m. there is a modest and yet imposing start.

Our lamps light up the arches in front. Two officers in red burnous are there, the only spectators. It is enough. Are not the simplest emotions the deepest?

"You have a fine task in front of you," said one of them, "and you will accomplish it in truly French style."

Could we imagine a better send-off than that?

The cars start slowly. Our headlights throw their glaring beams on the trunks of the palms and the clear water of the *seguias*.¹ Touggourt leaves us a last vision of an enchanted garden, aglow with phosphorescent light.

We pass the last *Koubas*.² The plain opens out in blue immensity. A few dogs, to which our small white Flossie, hidden under the awning, replies by an ironical and contemptuous growl, bark round a group of black tents hermetically closed. What are the shivering nomads thinking as they hear us pass?

Are they asking themselves what mysterious errand we pursue and for what occult reason we plunge into the void horizons of the desert on our apocalyptic beasts whose eyes shoot fire?

Perhaps they liken us to those legendary spirits, those old-time sorcerers of which the old women tell terrible stories round the fire of brushwood.

We are soon creeping over the *sebkas*.³ An icy

¹ Irrigation channels.

² *Kouba*, a small Moslem sanctuary usually covered with a cupola raised over the tomb of a marabout (saint).

³ *Sebkra*, a dried lagoon with soil more or less impregnated with salt.

From Touggourt to In Salah

vapour rises from the moist clay, mixed with crystals of saltpetre. We are all silent, one might say absorbed, because we now understand the magnitude of the task entrusted to us. Like ourselves, our mechanics, a chosen troop, are glad and proud of having been selected for its accomplishment. From this first minute one feels that the mission already forms a homogeneous block, urged by the same complete sense of duty, by the common will to succeed.

6 a.m.—The Ksar of Temassine.—The Kaïd Abdel-Kader ben Hadj Saïd is in front of his door. His watchman has announced to him the noise of the cars from afar. In a vaulted hall of his picturesque dwelling his agile servants pour out the black coffee, signifying the wish for a good voyage. He speaks of In Salah, where he lived for a long time, and of El Wed, where he once had the great good fortune of knowing Isabelle Eberhardt.

Our host was still a young man, clad in an immaculate burnous of white wool. He retains an unforgettable impression of the strange girl whose great literary talent succeeded so well in fixing all the aspects of the Sahara. For us, who read her works so often, it was an unexpected but delightful event to find her here, reverently invoked by one of her faithful friends of long ago, at the moment when we were about to plunge into the wild solitudes of the desert. It seemed as if she had come herself, protective and kind, to encourage us and show us the way.

We have left Temassine behind. A vague red glow rushes eastward along the ground and across the palm-trees. It broadens and grows. The sun is

Across the Sahara by Motor Car

rising. The dunes are like pink mother-of-pearl, and blue lights shimmer on the tufts of *drinn*.¹

The caravan route crosses a few small rocky downs, the most important of which, that of Dokkara, is crossed at 9 a.m.

On this first trial, the caterpillar cars already showed of what they were capable. While the pneumatic tire, even when doubled, digs into the sand without gripping it, and necessitates, as so often seen during the war in provisioning convoys, not only the employment of the shovel and the lever, but even mules and camels in difficult places, the caterpillar begins by heaping it up and planing it. And while it rolls over it easily, without jerk or effort, it pushes it behind in progressing over its surface. One may almost say that it makes its own road by passing over it. Thanks to its suppleness, the caterpillar behaves somewhat as does the wide soft foot of the dromedary, the most beautiful instrument adapted by Nature herself to the friable and powdery soil of the dunes.

That is not the only comparison we can make between the dromedary and our car. Their strength, their happy adaptation of colour and form to surroundings—an adaptation so complete that it seems to obey the laws of mimicry observed in animals—and their extraordinary sobriety (minimum consumption of petrol) constitute a range of qualities which quite naturally recall the precious animal so aptly called the “ship of the desert.”

By their instinctive talent for observation, the natives will often perceive this similarity. They will make some unexpected remarks, as shown by that

¹ A Sahara plant.

From Touggourt to In Salah

targui in the Hoggar who, seeing Maurice Penaud perspiring large drops in oiling his machine, said, with some irony :

“ Your mehari goes faster than mine, but mine gives me less trouble.”

At mid-day we made a short halt in the village of Ngoussa, a few miles from Wargla.

Ngoussa is a picturesque heap of *tob* (sun-baked bricks) amidst small dunes and hedges of scattered palms.

At 2 p.m. we arrived on the banks of a wide *sebkra*. Wargla is on the other bank, a yellow wave unfolding in the hot Sahara light. The *Ksar* (fortified village) stands out in sepia tones on a ground of such crude green that it looks almost black in places. It reminds one of those proud cities of the Saracens whose outlines were traced so well by Gustave Doré in illustration of the History of the Crusades. Slender minarets rise above the battlements of its walls. They crown the sacred mosque of Sella Aza and the ancient rival sanctuaries of the Beni Sissin, the Beni Waggin, and the Beni Brahim. The first station of the Ibadites, who peopled it in the tenth century, Wargla has known days of splendour. There was a time when poets who celebrated it could call it the “ golden key of the desert.” All the caravans of the great South flowed through it, and the vast *souks* saw a Pactolus of fabulous wealth. Alas, Wargla was also to know adversity ! A very learned *taleb* (literate) told us, while we drank small cups of *kaoua* (Moorish coffee), lying on the mats of a Moorish café, of the persecutions which the Ibadites had to suffer from the Sunnite armies who had sworn on the Koran to

Across the Sahara by Motor Car

exterminate them to the last man, and of their flight to rude Mزاب. In 1552, Salah Reïs took and pillaged Wargla. Three hundred years afterwards, in December 1853, Si Hanza, Kaïd of the Ouled Sidi Cheikh, occupied it in the name of the French. Our authority was definitely established in 1872.

Wargla owes its fertility to the subterranean course of the Wed Mya. Artesian wells are numerous, and furnish abundant water which feeds a million date-palms.

Soon, on the edge of the palm-groves, we distinguish with our glasses, and then with the naked eye, an enormous swarming crowd, with platoons of horsemen and camelry. We arrived in the centre of a group in which we were met by Commandant Duclos of the Oasis territory, Captain Belvalette, commanding the annex of Wargla, Captain Dupuis and Lieutenant Brunet. These officers were accompanied by great Arab chiefs : Kaïd Adda ben Baadj of the Saïd Otba and M'amed ben Kaddour of the Chaamba Bou Saïd. We were also introduced to Si Ali ben Mouïssa, the head of the Maghzen, and Ahmed ben Habkoum of the Guebala Chaamba, as well as the old guide of the Foureau-Lamy mission.

All the standards of the tribes and confederations floated in the breeze, surrounded by a great number of musicians. The shrill notes of Arab music sounded without interruption.

Here were groups of horsemen arriving, firing shots as they came. Then there was a fantasia on foot at a breathless pace.

The festivities comprised camel and horse races, for which we acted as starters. At five o'clock a



THE CARS OF THE EXPEDITION.



ARRIVAL AT WARGLA.

From Touggourt to In Salah

select *diffa* (banquet) was given to us in the immense tent of the Kaïd Adda of the Saïd Otba.

That tent had quite a history. At the death of his father, Kaïd Adda had to choose between it and numerous herds. He preferred the tent of his ancestors and had no other heritage. It is raised to-day on a small hillock overlooking the *sebkra*, the surrounding dunes and the magnificent wave of palm-trees.

We sat on one of the great red and black carpets which the women of the Djelfa know so well how to make. Through the entrance of the tent we could see the silent crowd moving slowly towards the *Ksar*. It was a Biblical scene, an exact reproduction of the time when Abraham camped in the Holy Land with his sons and his servants.

Some *raïtas* (Sahara flutes) performed in a minor key their arabesques in a strange chromatic scale sustained by the abrupt beating of a drum. This wild music has a penetrating charm. It cradled and intoxicated us like a wizard's philtre.

The sands gradually reddened ; in the west, the black plateau of the *hammada* (stony region) assumed mauve tints, and the first day of our raid ended in this lovely twilight, a day of transition from civilised life to the life of the great wild *bled*.

At 8 p.m., dinner at the mess of the Native Affairs, in that *popote* where General Laperrine so often had his meals between his great Sahara enterprises.

Some hours afterwards, before sleeping in the guest rooms placed at our disposal, we discuss the impressions gathered in our first contact with the great Sahara oasis. These impressions are excellent. We

Across the Sahara by Motor Car

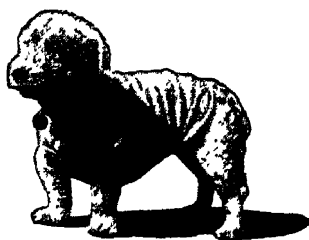
were undoubtedly awaited with equal impatience and curiosity by both the European and the native elements, but for very different reasons.

In examining our caterpillars, the officers wanted particularly to judge of the hopes they might be justified in basing upon this new method of propulsion in the matter of the rapidity and security of inter-Saharan communications. Our attempt, therefore, brings clearly under their eyes the exact and complete problem to which we have devoted our efforts. To them we are not simply tourists, but rather what we wish to be : experimenters whose work is to open the vast horizons of the desert to useful progress. This clear and sympathetic comprehension has much value for us as a precious encouragement.

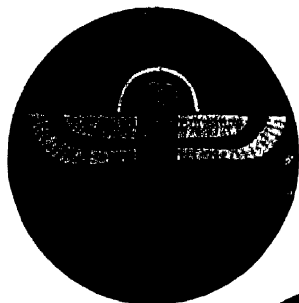
As regards the natives, it is our weapons which seem to have interested them particularly. We recollect with some pleasure the respect shown by the crowd to our three machine-guns. It is just as well that the inhabitants of the Sahara should know that the power of France, represented in this effective manner, can now move at the rate of several hundred miles a day over any sort of ground.

The natives of Wargla were also much interested in the emblems on our cars. All the five are, in fact, emblazoned as were in olden times the palfreys of the knights starting on a crusade, as also were the aeroplanes in the war, the automobiles, and even pieces of artillery. The first bears the Golden Scarab, the second the Silver Crescent, the third the Flying Tortoise, the fourth the Apis Bull, and the fifth the Climbing Caterpillar.

To-day the designs were fully examined and com-



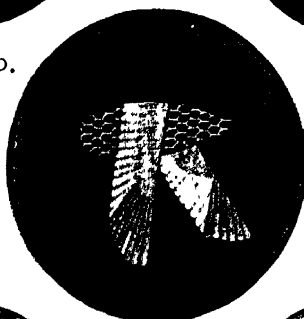
OUR MASCOT, FLOSSIE.



Golden Scarab.



Silver Crescent.



Flying
Tortoise.



Apis Bull.



Crawling Caterpillar.

EMBLEMS OF THE CARS.

Facing p. 50

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mented upon. They were, no doubt, taken to be magic signs more or less efficacious against the Evil Eye. And indeed, what else are they? What do you think of it, Flossie, you living mascot, sleeping, serene and free from care, rolled up in a ball on a sumptuous carpet of the Djebel Amour?

December 18th.—Started from Wargla at 6 a.m. Commandant Duclos, Captain Belvalette and Lieutenant Brunet accompanied us for several miles, as did our friend M. Hinstin, who had come as far as Wargla to bid us a final adieu.

The sun rose behind Rouissat. The cold is very intense at the dawn of the day.

About 6.30 we passed the foot of the Gara Krime. This is where in 1898 the officers at Wargla, Captain Pein and Lieutenant Dinaux, said good-bye to the Foureau-Lamy mission as it started to cross the Sahara. It took two years to reach the Niger.

The Gara Krime is a flat hill dominating the sandy plain. In the morning and evening it is tinted with the most diverse colours. A Sahara poet, in speaking of it, calls it "the earthly sister of the rainbow."

About seven o'clock, still within sight of that hill, we decided to take leave of the Saharian officers and our friend Hinstin. Commandant Duclos had wished to see us as far as that place. It was a solemn moment on the confines of the desert for those who went to cross it by a new means.

Commandant Duclos and Captain Belvalette were clad in sombre overcoats. Lieutenant Brunet wore a white burnous over his brown djebira. This young lieutenant is only thirty, but he is already an old

Across the Sahara by Motor Car

Saharian officer with white hair. For ten years he has been ceaselessly travelling across the immensity of the moving *aregs* (sand-dunes) and the rocky hammadas. For several years he was Resident at Hoggar, where he governed the Tuaregs with such tact and wisdom that his memory is still unanimously revered by those touchy *grands seigneurs*.

The Saharian officers watched our departure with some emotion. Their confidence in our success is unshakeable, but they know the difficulties of all sorts, the snares of all kinds with which we shall have to contend: wells found empty after long stages, the rage of the simoom, raising on the desert the great waves of the sand-dunes, more terrible than sea-waves, the marauding *joosh*¹ falling in the early dawn like birds of prey upon caravans still asleep.

Commandant Duclos, who made us a splendid speech the night before, was almost silent at the parting. He only said a few words.

A last farewell. The cars are set in motion. The group grows smaller and smaller, and finally disappears. The Gara Krime alone rises above the sandy horizon for a time. We are crossing immense forlorn spaces. The going is slow, the sand soft, and dotted with tufts of *sboth*² and *drinn*. There are no landmarks. Our only guides are the tracks of the provisioning cars. Thirty-seven miles from Wargla we had to cross some ten miles of gypsum soil very trying for our vehicles.

About noon we arrived at the first small dunes rising to the north of the well of Hassi Djemel. It was very cold, with little wind, but the sky was over-

¹ *Joosh*, singular *jish*, bands of plunderers.

² *Sboth*, a ligneous Sahara plant.

From Touggourt to In Salah

cast. We took the shortest cut before Hassi Djemel, which we saw in the distance, but which we shall not pass through, because we no longer depend upon wells. Here we see once more the obvious superiority of the caterpillar over the wheel to its full extent. By means of their caterpillars, our cars go straight ahead without minding the sand, over which they travel with remarkable ease, driven by their modest little motors of 10 horse-power and in spite of their load of two tons.

Soon we are rolling over a ground of *reg* strewn with small coloured pebbles. The lower the sun descends, the more diverse and curious become the colours of these pebbles.

At 5 p.m. the night commences to fall. We go for some time without lights. The white cars are seen against the *reg*, which grows darker and darker, like mysterious beings trying to hide in the night.

About 10 p.m. we stop at the foot of the dunes of Kheshaba. It is our first camp. The tents are put up. There is not a particle of wood. It is therefore impossible to cook or even to warm ourselves. Yet the night is icy. Are we really explorers of the Sahara? Seeing us huddled under our blankets, one might think rather of some emulators of Charcot or Scott. The illusion is heightened by the light of our headlamps which give a whiteness as of snow to the sand.

December 19th.—In the morning, before starting, we look at the thermometer. It says 5 degrees above zero (41 degrees Fahr.)! A reconnaissance is necessary to find the passage out of the dunes.

Across the Sahara by Motor Car

It is not an easy matter in this cold night in the middle of this rough and dead country.

At eight o'clock, after traversing some barren tracts, we ascend a little hill. From its summit the sight is glorious. Immense dunes stretch out to the west. The sun is not yet high, and it gives them an aspect which changes every minute. They are pink, blue, mauve. Some of them seem covered with a layer of lacquer and enamel; others tremble and palpitate like living flesh. More distant ones tone down to tints so pale that they finally seem translucent and almost immaterial. On the horizon they seem suspended over the ground and inflated like sails.

We stop to fill up our tanks and take some cinematograph views. About 1 p.m. we see a caravan in front of us. To reach it is child's play. It is the Danish mission of Dr. Olufsen, which is slowly working its way to In Salah and the Hoggar. It left Touggourt very many days ago.

Dr. Olufsen is a charming man, a very distinguished savant, who, for twenty-eight years, has been ceaselessly careering over the entire globe. He has written very interesting studies of the rigours of the Caucasus and Thibet. He introduces us to his comrades and collaborators, the Danish men of science of his party. The mission is accompanied by Dr. Boucard, charged by the French Government with its guidance.

At 2 p.m. we arrive on the banks of the Wed Mya.

After the many miles of barren solitude we have traversed, the sudden sight of this Wed covered with vegetation is impressive. By contrast, it is a terrestrial paradise. Great *lethels* (gum-trees) and splendid *retems* (jennet bushes) grow there, and at certain

From Touggourt to In Salah

moments they send their perfume over the surrounding dunes and *reg*.

We descend into this fairy-like valley, to follow it henceforth as far as Hassi Inifel. About 3 p.m. we pass the wells of Sedjera Touila, where a guard has been provisionally stationed for our raid. This well is 250 feet deep.

Having crossed some dunes, we passed in the twilight along the foot of a hillock on the top of which is the grave of a poor woman who died of fatigue and exhaustion on her way from El Golea to Gabes.

Somewhat farther along we come across small heaps of stones. At this place, it seems, the Chaambas once stopped a large *rezzi*¹ of Tuaregs who were trying to return to the north. Before giving battle, each warrior had taken care to place beside him a small heap of stones, so that he might still fight and defend himself after exhausting his stock of arrows and javelins. Since that time it is the custom, when the *sokhars* (camel guards) pass by this battlefield, to collect a small heap of stones in memory of the great victory.

At 4 p.m. we perceive the Fort of Hassi Inifel, situated on the banks of the Wed Mya, in the face of a moving dune which is constantly getting nearer and will probably end by burying it. Other dunes rise up towards the east, it is the Eastern Areg, an immense sea of sand which extends as far as Tripoli. To the south, more dunes. A giant *lethel*, growing alone in the middle of the Wed, throws a green patch into this immense desolation.

¹ *Rezzi*, pl. *rezzou*, a group of warriors on a razzia or plundering expedition.

Across the Sahara by Motor Car

The ground is very bad. We roll over a fine marl in which the caterpillars sink considerably. Each car raises an enormous cloud of white dust behind, which rises very high in the calm evening air.

It is the hour when the daily fairy work of twilight begins. As the sun goes down, the dunes take on extraordinary colours, impossible to describe, with a play from pale pink to black velvet through every prismatic fantasy.

We reach Hassi Inifel at the close of day, numerous crevasses having considerably retarded our progress.

Last year the trial mission made two stops here, the total of which represented nearly a month. We are glad to find here an old friend of untiring devotion, the watchman Amu, who solemnly opens the gates of the new *bordj*,¹ where we place our cars in shelter from the wind.

It is a sinister spot. Close by the *bordj* are some graves, those of the three White Fathers massacred in this region before it was occupied by our troops. Also those of a soldier who died of thirst and another who died of exhaustion.

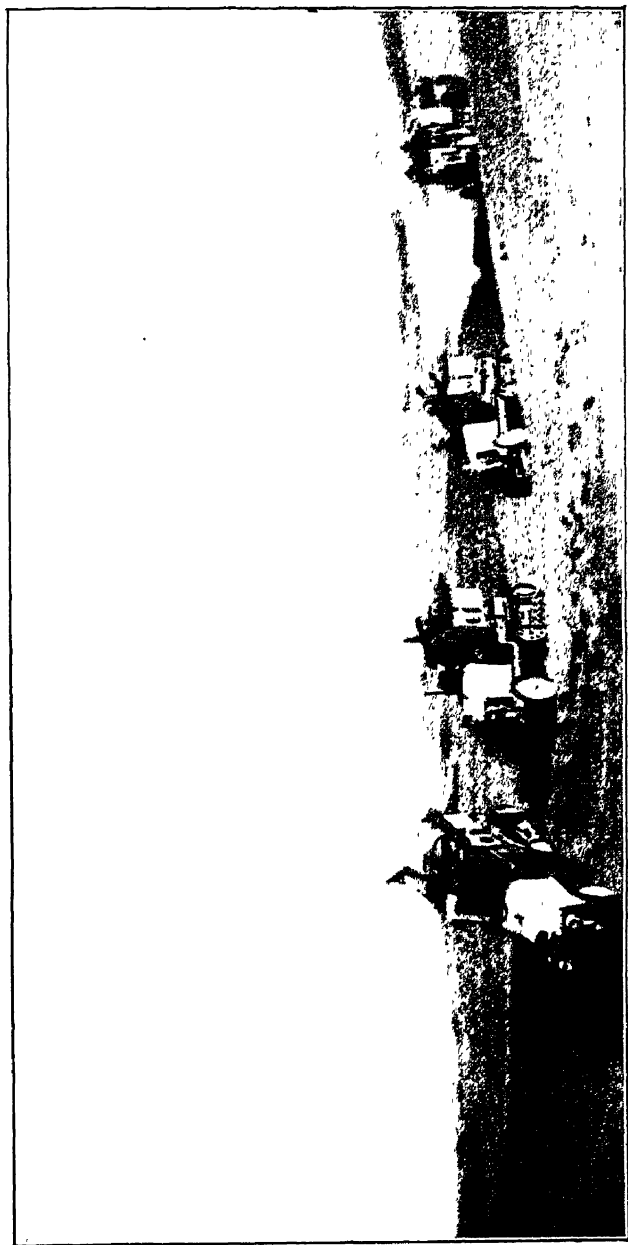
On the other side of the *Wed* there rises an old fort. It is now only occupied by three Tessefists.

While the mechanics are overhauling the cars we go there to send the following telegram :

INIFEL, 19-12, 9 p.m.

At the foot of the Gara Krime the officers of Wargla yesterday, December 18th, bade us a last and impressive farewell. Having camped among the dunes of Kheshaba, we arrived to-day, Decem-

¹ *Bordj* : a stone edifice serving either as a residence or as a refuge or caravanserai.



IN THE DUNES BEFORE INIFEL.

Facing p. 56.

From Touggourt to In Salah

ber 19th, in the afternoon, at the Fort of Hassi Inifel. At the beginning of this long stage we traversed, without any difficulty for our caterpillars, plains of sand, and then we followed the Wed Mya, whose valley winds among the sand-dunes. Tomorrow we attack the sombre plateau of Tademait.

HAARDT AUDOUIN-DUBREUIL.

The Tessefists make a light with small wicks dipped in fat. It is a strange sight to see them painfully reading our telegram in that flickering light while the great livid sparks sputter between the poles of the transmitting apparatus.

When we leave them night has fallen. We must cross the Wed Mya through the darkness in order to reach the new bordj gaily illuminated by our headlights.

The meharists sent from El Golea to guard us do some rough-and-ready cooking for us. We put up in a bare, whitewashed room. It is late before we get to sleep.

December 20th.—At 4 a.m., the coming and going begins which precedes departures, and soon, in the black night, the cars slowly pass out of the bordj and take the track which will lead them to the plateau of Tademait and towards In Salah. For twelve miles the track follows the dunes and the sandy ground. It sometimes grips the flanks of the valley of the Wed Mya. At first it is good and well marked, but soon it disappears almost completely in a terrain of soft *reg*, and it is only thanks to the traces of the provisioning caterpillars that we can make rapid headway in the night.

Across the Sahara by Motor Car

The sun rises to-day on a rather monotonous undulating country. But dawn is always beautiful in the Sahara, and these stretches of land, under the first rays of the sun, become pretty pictures of a thousand colours.

The going is slower than we expected. The ground is heavy. Only about mid-day do we reach a hard soil, where we roll along more easily. We are then 56 miles south of Inifel, at the crossing of the old caravan route from Inifel to In Salah.

At 2 p.m. we commence to climb the first buttresses of the plateau of Tademait. We pass near a pre-historic site which would make the joy of a collector of cut stone.

About 4 p.m. our cars enter a Wed which keeps almost continually the direction from north to south. We find an excellent track, abandoned long ago, but rediscovered last year by our trial mission.

The night surprises us in front of the Wed Fresha. We continue at a good pace. The cold is intense, and occasions some real suffering.

The leading car stops some ten kilometres from Ain-Guettara, because the other cars do not seem to be following. The ground is very broken, and visibility is not great. The headlights of the stragglers are not seen. A red rocket is fired, asking for information. In the distance, two white rockets go up, meaning: "Nothing of any importance, but wait for us."

About 11 p.m. the other travellers join up at last. It was only a small incident, a pulley getting stuck and fouling a caterpillar. We are approaching Ain-Guettara. Soon the leading car loses its way in the

From Touggourt to In Salah

night and follows an old track terminating on the edge of a pit, into which it would have fallen but for the caterpillars, which held it. It succeeds in turning back before the others come up.

The right road is resumed. Our lights at last shine on the white bordj of Ain-Guettara dominating the deep black gorges.

The bordj of Ain-Guettara was constructed in 1918, after the death of two officers and twelve men massacred by a strong *jish* coming from the frontier of Tripoli. Near the well are the graves of the victims of that odious ambush.

At the bottom of the gorge other graves are found of people killed in this sinister spot. And farther on, towards the well, those of poor travellers who died of thirst before reaching it.

The bordj is not now garrisoned, but a few *goumiers* (native soldiers) had been stationed there in view of our passage through.

These Saharian *goumiers* are valuable auxiliaries, full of courage, intelligence, and devotion. Constantly riding on their slim-legged meharas across immense sectors, they assure, with untiring zeal, the conveyance of orders and the surveillance of the wells. Their services to us cannot be valued too highly. One's mind is dumbfounded on thinking that but yesterday these same men were wild track-cutters and caravan despoilers. Here is one of the good deeds of France. She has known how to attract and attach to herself these men and to utilise their bellicose instincts and their local knowledge for her work of pacification and progress. All of them are now her loyal servants, conscious and proud of their new

Across the Sahara by Motor Car

avocation, to which they devote themselves, body and soul, without reserve.

At 2 a.m. the lamps go out one by one. We shall rest for a few hours, to leave Ain-Guettara before daybreak.

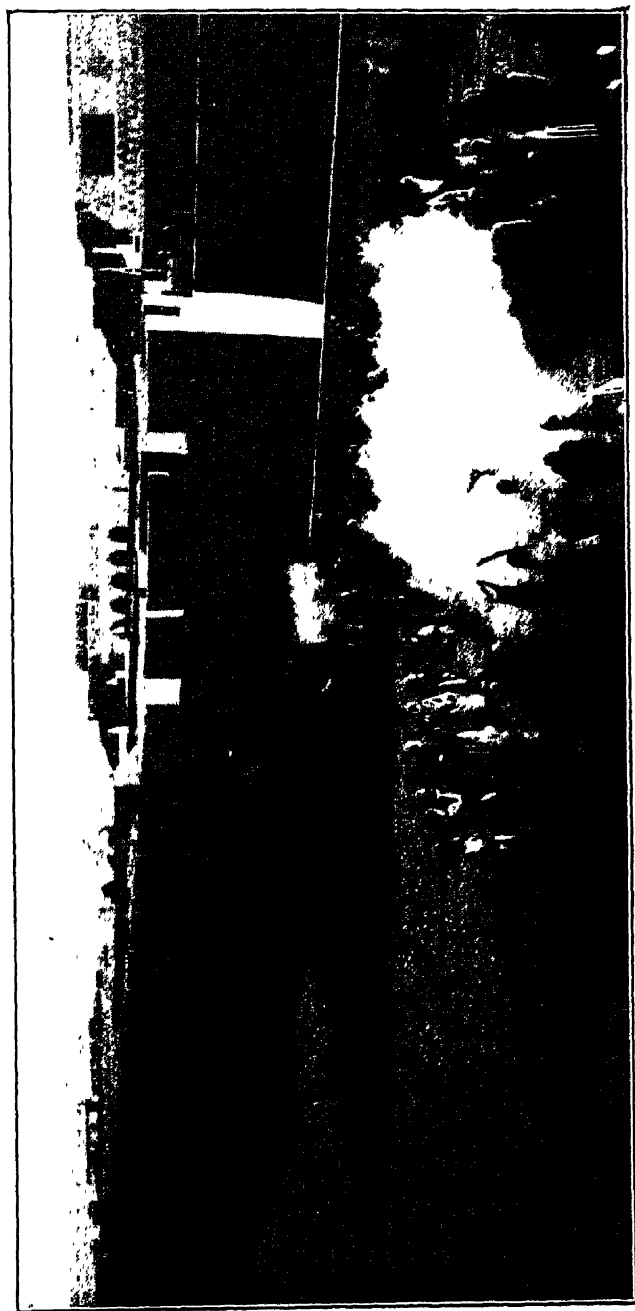
Up at 4 a.m. A vague glow in the east as we leave the bordj. Soon the day breaks.

We descend to the bottom of the gorge by a winding track. The white bordj looks down upon us with its imposing silhouette. It is a vision of the Middle Ages. Away in Syria, at the time of the Crusades, our ancestors had to construct fortified castles like this, on similar sombre rocks.

In the gorges and defiles, the cars are forced to proceed in Indian file. As they debouch into the sandy plain they advance together, each choosing the terrain which appears most favourable, without, however, passing beyond the usual leading car. This kind of formation brings them close together and facilitates the often witty remarks among the mechanics. For the moment they are silent, having enough to do to watch their engines, and the country is grandiose and sinister. The men are unconsciously feeling it. These grand mineral architectures which dominate us on all sides evoke the remembrance of some formidable cataclysm. During geological ages the floods of rain from a low sky filled with clouds must have aided the internal fires of the planet in giving it this aspect of convulsion.

At 5 miles, where the gorges widen out, there is a hardly discernible grave amidst the stones. It is that of a man who died of thirst three years ago, in endeavouring to reach the well of Ain-Guettara.

We pass on. At 9 a.m. we arrive at a junction of



NATIVE CELEBRATIONS AT THE BORDJ OF IN SALAH.

Facing p. 60.

From Touggourt to In Salah

tracks vaguely traceable on the rocky ground. We must leave the track to Tademait on the right while we turn to the left towards the blond plains of Tidikelt, which we shall soon reach.

Here the country resembles the Dahar of the extreme south of Tunisia. Since Ain-Guettara a cliff runs beside our route from north to south, composed of schist or greenish, pink, and violet marl.

We pass on towards Gouret El Diab, where there was formerly a well, and then to Foggaret.

The region we are crossing, though well known and traversed by caravans, is still too often the scene of dramas of thirst.

Last year, after the passing of our trial mission, a small caravan composed of a man, his wife, his two children and an Arab guide, lost their way there. The man had the imprudence to accept the company of the native, who did not take enough water with him. Soon the water gave out. The men left the woman and the children to get the faster to Foggaret for help. They arrived completely exhausted. The man went half mad. The native he had brought with him, and who was the cause of the disaster, recovered. The *goumiers* who set out from Foggaret to find the woman and the children could not reach them in time. When they found them they were all dead.

An older drama of thirst, also played on the confines of Tademait, inspired Commandant Duclos to tell the following :

THE ROCK OF THE THREE OULED NAILS.

Some autumn before the war, when the storks were flying to the south across the sky of Jelfa, three little dancers of the Ouled Nails left their red-banded tents.

Across the Sahara by Motor Car

Their baggage was light, but made up in the usual way by their mothers : three haïks of white spangled tulle which in the evening scatters fire under the lamps of the Moorish café, three kerchiefs of pale silk which, at the hour of dancing, flutter under the fingers like the wings of a dove, a thick carpet of Jebel Amoor, and six of those small teacups which stand round the tin teapot.

Ourida, the "little rose," Oum Er Rebia, "she who brings the spring," and Meriem, the little cousin, down the ages, of that Mary who bathed in perfume the feet of the Prophet of Galilee, mounted into their *bassours*¹ and in slow stages reached Mzab.

A whole month, every evening, they danced about Ghardaïa, the capital of the Seven Towns. Squatting on their heels, the fat mozabites, more inflated than the leather bottles, gazed at them. When the raïta player passed by them they passed into his hand some of those new louis which the goldsmiths of the cross-roads know so well how to assemble in necklaces by means of an invisible joint. Yet Ourida, Oum Er Rebia, and Meriem had shadows of sorrow in their black eyes, blued with *khol*.² They were weary of the merchants with the heavy forms.

One evening, while Ourida danced, a big man with a triple burnous, offered to the raïtist a piece of gold, broad as a saucer—a piece of gold of 20 *douros* (100 francs). Knitting his eyebrows, the raïtist held the blazing disc of metal suspended on his forehead, while his inflated cheeks and lungs celebrated the magnificence of the donor with a tumult of sound. But Ourida turned away her head and went to sit down by her companions. Next day they all three departed for El Meneach, which the infidels call El Golea.

In that marvellous oasis of the desert, the true garden of pomegranates, oranges and roses, among the flowers and fruits, Ourida, Oum Er Rebia, and Meriem knew happiness. Sometimes they stretched out their arms towards the branches full

¹ *Bassour*, a light palanquin borne by a camel, used by Arab women for travelling.

² *Khol*, an ointment with a base of antimony.

From Touggourt to In Salah

of blood oranges, and filled their pale silk kerchiefs with them. Sometimes they danced alone, for their own pleasure, under the green palms, by the *seguias* of running water. And when, with their hands reddened with henna, they sorted the ruby-coloured pomegranates, Sheherezade would have loved to humble the fruit by comparing it with the red of their lips.

But one day a Saharian, mounted on a white *mehari*, passed their way.

A whole evening, squatting on the mats of the Moorish café, he sang the life of the Saharian. He told of long rides across the desert, the dune which the wind sets smoking like a brasier or ruffles like the blond mane of a winged horse. He told of springs shrinking in the summer, where the leather bottles are filled slowly, cup by cup, and the fogs of black dust where one gropes in blindness, with death riding double. He told of the *rezzi*, tracked for a whole moon and surprised before dawn, when man and beast are heavy with sleep. He told of combats with lance and javelin, sabre and buckler, and with the more cruel rifle bullet which, however, a propitious invocation will turn into a flower. He told of the freshness of pastures after rain and the deep grass where camels acquire a hump rounder than the bellies of the mozabites. He sang of the plaintive *amzad* (native violin) in the Tuareg *ahaal* (musical assembly) and amorous meetings under the shadow and the tamarisk. He spoke long under the stars, and when the sky began to grow pale he saluted, with his hand on his heart, Ourida, Oum Er Rebia, and Meriem, and they heard the smothered groaning of the camel being saddled.

Since then, the three little dancers were yet more sorrowful than they had been among the rich *moorshoos*. In Salah, the town of the Saharians, filled their brown heads with its mirage. They inquired discreetly about the road thither. One morning, having rolled up in the carpet of Jebel Amoor their spangled haïks and their kerchiefs of pale silk, and having placed in an illuminated box their three necklaces and their six little cups, they climbed into their *bassouns* and disappeared under the guidance of an old negro.

Three months afterwards, a Saharian found, several days'

Across the Sahara by Motor Car

march from Ain-Guettara, not far from the abandoned well of El Mounkar, the mummified corpse of a negro. He followed his trail. It stopped near the sandy rock which is now called the "Rock of the Three Ouled Nails." There, on the unfolded carpet, lay Ourida, Oum Er Rebia, and Meriem. They seemed to be asleep in their spangled haïks, their gold necklaces on their necks, their pale silk kerchiefs over their faces. And by the fallen teapot were three small cups, full of sand.

At 1 p.m. the mission traversed a veritable lunar landscape. It stopped to make a light luncheon. Shortly afterwards it reached the plain of Tidikelt, which it followed as far as In Salah, and from In Salah to the mountains of Mouydir.

Soon Foggaret appeared in the distance. It looked like a small port surrounded by an immense sea of sand. Deceptive mirages play about this flat land; sometimes there are lakes with blurred shores, then pink towns arise, with cupolas and minarets which disappear in turn and give place to a febrile vibration as of a great vapour.

With such spectacles, it is not surprising that the imagination of the nomads has conjured up all those stories of fairies, of *djunn*¹ and *effris*¹ which form the prodigiously abundant source of Saharian legend.

In the soft sand stirred by the caterpillars, our white cars now give the curious impression of a small squadron of high-boarded torpedo-boats. The likeness struck our mechanics, who termed our No. 1 car the "Admiral's car."

At 2 p.m. the mission arrived at Foggaret. It was received by the Kaïd, who had prepared for us a

¹ *Djinn*, pl. *djunn*, and *effris*, legendary beings corresponding to our hobgoblins, genies, will-o'-the-wisps, etc.

From Touggourt to In Salah

grand *diffa*. We had reluctantly to decline it, as it would have made us late for In Salah. We only accepted a cup of tea *à la menthe*.

Foggaret el Zoua is the first small village we have encountered since our departure from Wargla, for at Inifel there was nothing except the fort.

Foggaret has a very Saharian aspect, with its low houses, made of sun-dried bricks, disseminated among the dunes.

Beside the Kaïd with the bright eye and the great black beard stood the old Kalifat Mohammed, a fine and dignified old man, who had received us amicably the previous winter. It is said that at the capture of In Salah he was young and beloved of the women. So they locked him up so that he should not go and fight. They wanted to keep at least one man for their pleasure and the preservation of the race.

We left Foggaret at 2.30 p.m. to traverse the sandy plain towards the dunes behind which was hidden the small village and palm-grove of Igostem.

To the north, a few miles away, lies the plateau of Tademait, looking like a series of immense fortified castles with black dungeons which majestically dominate the plain.

About 4 p.m. we reach Igostem. The head of the village, in a red burnous, comes to meet us. We quickly fill our tanks and push on towards In Salah, so as to arrive before twilight, for we know that our friends there are waiting for us, Captain Saint-Martin and his officers.

The day wanes rapidly. The plateau of Tademait becomes less sombre and imposing. Then it loses its dark tints to turn mauve and sometimes quite blue.

Across the Sahara by Motor Car

At 4.30 we are within sight of the bordj of In Salah. At the foot of a majestic dune, clear against a cameo sky, the meharists await us.

As we approach they surround our cars, firing salvos and shouting with joy. We recognise at their head our old friend Adjutant Taieb. He looks splendid in his red burnous. This brave servant is always there to greet us first, whether arriving or departing.

The palm-grove stands out clearly against the sandy background. A mile from the bordj an immense crowd of women and children runs towards us, waving palm-branches. They shout and surround our cars.

Alongside car No. 2 there runs with ease a graceful *herratine*.¹ "This is your sister," cries a negro, flourishing an old blunderbuss which would have excited the envy of an old-time Spaniard. The *herratine* is pretty, and we accept with pleasure this problematical affinity.

At the gate of the bordj, Captain Saint-Martin awaits us, surrounded by his officers. We note his distinguished appearance and easy manner amidst this swarming crowd and all these cavaliers. The Captain receives us with that grand simplicity which we have known for a long time and which always charms us.

To-night we are at the end of the first of the four great stages which are to take us to Timbuctoo the mysterious. It is a splendid and comforting evening. In Salah, the great oasis of the desert, gives us a cordial and excellent reception which gives us an unshakeable

¹ *Herratine*, a negro and Arab half-caste.

From Touggourt to In Salah

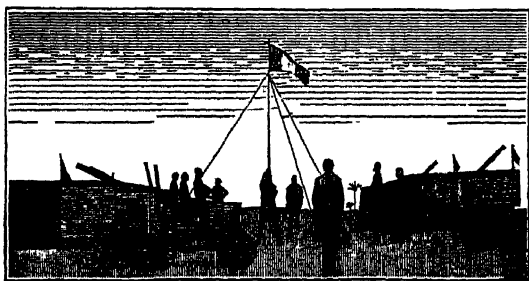
confidence in ourselves and the absolute certainty of carrying to a successful conclusion the exacting mission entrusted to us.

December 22nd.—Overhauling the cars.—In the afternoon, we are present at festivities given in our honour : fantasia on foot, dance of the women, and distribution of the grain offered by the mission.

While the festivities terminate in the strident noise of the tom-toms, we go on camels with Captain Saint-Martin to make the circuit of the palm-groves. When we come back, the sun will already have ceased to caress with its last rays this plateau of Tademait, to us so full of mystery, and so charming in its varying lights morning and evening.

December 23rd.—The cars are being tuned up. There will be a short rest for the personnel, which has undergone great labours since Wargla.

To-morrow, before daybreak, we leave In Salah.





TUAREG WARRIORS.

Facing p. 90.

CHAPTER III

TOWARDS THE HOGGAR THROUGH THE PLAINS OF TIDIKELT

In the Infinite Plains—The Distorting Optics of the Desert—A Camel Ossuary—The Halt at the Wells of Tadmout—Calm in the Mountains—A Saharian Christmas—Surprises of Awakening—The Gorges of Arrak—A Veiled Warrior—A Tiring March in the Night—At the Wells of Tesnoa—Over Mountains and Valleys—The Reign of Silence—Lunar Landscape—The Caterpillar and the Roads—The Hoggar—Arrival at Arrem Tit—The Tuaregs—Flossie, the Supernatural Animal—The Tobol of War—The Targuia Ladies and the Diffa of the Amenokal—Some Fashionable Customs—On the Way to the Land of Thirst.



IN SALAH, *December 24th, 4 a.m.*—In the night the cars are drawn up near the closed gate of the bordj which faces south-west. Captain Saint-Martin, his officers and non-commissioned officers, are there. They wish to shake hands and speed us on our way.

This affectionate solicitude shown to us always and everywhere by the representatives of France in the Saharian solitudes will be among the best memories of our raid.

5 *a.m.*—Two white meharists open the gates of the bordj. After a last farewell we plunge into the night.

But for the tracks of our three provisioning cars which, under Lieutenant Estienne, pushed forward as far as Tesnou, to the south of Mouydir, we could not have found our way. A cold wind without obstruction sweeps the immense plains of Tidikelt. The day soon breaks, a little grey and sad, as if it hesitated to illumine this rough country, this bare and implacable solitude of infinite desolation, dead for ever, and so flat that the least diversity of ground takes gigantic proportions. Thus a small *goor*,¹ a mere molehill rising in the east,

¹ *Goor*, pl. *gara*, an isolated hill usually of regular geometrical form.

Across the Sahara by Motor Car

seems enormous. This impossibility of appreciating the proportion of things at its real value is a phenomenon well known to travellers of the desert. A physicist will no doubt explain it by subtle arguments, on the basis of fundamental laws of optics. The nomad has a simpler and more fertile imagination. To him this deception is the evil work of the *junn* and the *effris*, and this has given rise to quite a cycle of legends which the camelmen tell each other as they travel along slowly, rocked by the most rhythmical of mounts.

About 7 a.m. we pass within a mile of the well of Hassi Gouira, guarded by two meharists; but these must be asleep in their sandhole, and the wind, which blows a gale, drowns the noise of our engines.

9 a.m.—Here is the plain, the infinite plain, with nothing on the horizon but an indefinite and softened line where the washy blue of the sky and the pale ochre of the arid earth mingle.

Skeletons of camels are strewn along our route, queer white carcasses, thoracic cages, dispersed vertebrae, flat skulls of a strange reptilian shape, indicating some curious relationship with the great saurians of the geological records.

Some day, when the plain resembles an immense field of lava under the torrid breath of the sirocco, the animal falls there in a heap, conquered by thirst or by fatigue. It is relieved of its burden, not out of pity, but because its failure has rendered it useless. The caravan passes on. Then commences the long and atrocious agony. The eyelids press down upon great eyes filled with terror, the flanks tremble, the

Towards the Hoggar through Tidikelt

long white hoofs stretch out, shaken with a convulsive spasm which can still be traced in the sand, the neck turns and curves slowly until it touches the hump. It is the end. Nerves, muscles, and blood, all the suffering animal becomes motionless for ever. Death has done its work. Then come the jackals, and afterwards the ants and the black beetles which are the grave-diggers of the desert. These spare skeletons are all that is left, a little phosphate of lime which will slowly dissolve until it is incorporated, atom by atom, with the eternal sands, eternally churned by the wind.

It is the destiny of the race to die thus, after a life without repose, a life of toil and continual suffering, on the implacable trail.

About 11 a.m. we perceive a sort of small plateau and we traverse an ancient *sebkra* four or five miles long. The ground is of hardened clay.

At 11.30 a.m. we arrive at a large and sudden declivity. We are at Hassi El Khenig. The well is situated at the foot of the cliff which rises towards the east.

We have to halt, as the last car has fired a rifle shot to ask us to wait for it. We do not see it, but it must be about a mile behind.

No. 1 car turns back to see what has become of it, while we fill up. The laggard soon joins us. A pulley had split.

We continue on our way, passing for some time along the Wed Botha, in a rather soft sand which delays our progress.

Up to now the ground had been splendid, and we had covered pretty steadily some 19 miles per hour.

Across the Sahara by Motor Car

About 3 p.m. we arrived at Wed In Takoula. The soil was harder, a kind of undulating *reg* with coarse gravel, sometimes black.

We now distinguish the first mountains of Mouydir. Our route is still marked by camel bones. In the long run, this sinister sight, constantly renewed, amounts to a nightmare. Maurice Penaud essays a pleasantry to dispel the haunting oppression.

"Special accommodation for camels," he says, pointing to the ribs and vertebræ strewn along the ground.

At 3.30 p.m. we arrive at the well of Tiguelguemine, at the entrance of a defile which crosses the foothills. It is held by a few Saharians.

A short halt.

We give a little tea and sugar to the brave meharists and then continue on our way. As usual, we have no need of water. Besides, the two *gueltas* (natural cisterns) in which it is found are situated well up in the mountains, thirty minutes' walk from the place where we pass. According to what we hear, one of them gives very good water, the other is slightly salt.

We are now rolling along over the mountains of Mouydir. There is little wind. A great calm reigns in the land.

The sun sinks rapidly, giving divers hues of extreme softness to the rocky hills surrounding us. Blue predominates, a beautiful blue, sometimes slaty, sometimes light grey.

There are some bad pieces. Our cars have to escalate some big rocks, then the valley becomes broader, the ground improves, and we bowl along at a good pace.

Towards the Hoggar through Tidikelt

The night is dark by the time we reach the gorges of Tiretemine. It is a chaotic place, with great livid walls. It is all mineral, not a plant, nothing but the everlasting immobility of stone.

It is almost hot after the icy nights on the plateau of Tademait.

The winding trail meanders capriciously, sometimes over a black *reg*, and again over pebbly ground. With their headlights, our five cars look like a long luminous serpent crawling over the mountains whose faint outlines are drawn across the starry sky.

At midnight we suddenly perceive a fire near the well of Tajmout, where we find the provisioning cars left by Estienne in the care of a few meharists.

It is Christmas Eve. While in France everybody is gaily sitting up, we are gathered round a great fire of Saharian brushwood, the balmy smoke of which rises up straight in the shadows.

Some of our company are pensive in thinking of their home fires. This Christmas night is a reminder of the France we have left behind.

We write some notes and letters. A meharist will carry the letters to In Salah, to Captain Saint-Martin.

The fire burns and crackles. Our mechanics quickly fill up and we dine.

We get into our tents about 2 a.m.

As to-morrow's stage will not be quite so long, we have decided not to start before daybreak.

TADJMOUT, *December 25th.*—As we leave our tents, the sun is already risen.

Surprise is always great when one sees in the daytime the place where one has arrived and camped

Across the Sahara by Motor Car

in the night. Sometimes there are mountains rising where one expected a sandy plain. Sometimes there are simple undulations of the ground where one had expected great hills.

In moonlight one can form a better conception of the landscape, especially at full moon, for in the Sahara, under that beautiful limpid sky, moonlight is almost as bright as day.

We leave Tadmout at 8.30 and skirt a straight mountain range running directly north and south. Towards the east there are great vistas over a chaos of blond dunes dominated by other mountains.

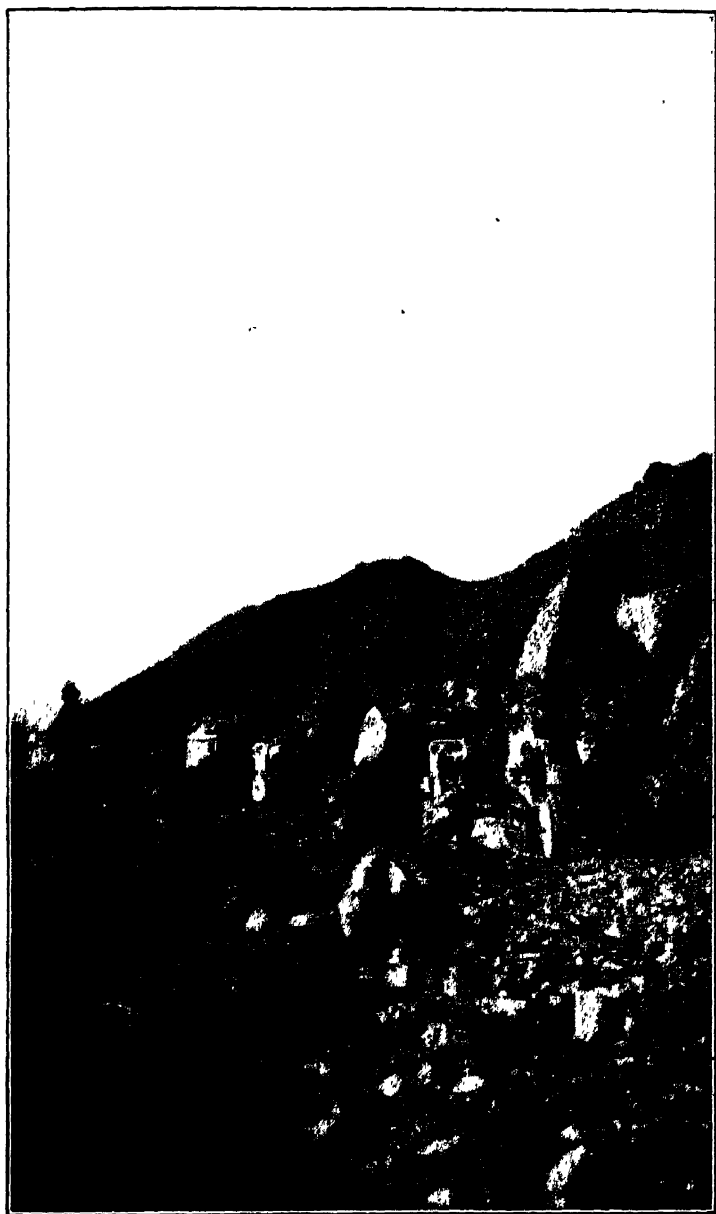
At 9.30 we see, rising in front of us, the high cliffs in which the narrow gorges of Arrak begin. We expect to cross them in a few hours without difficulty, but in the evening, as night falls, we are still among them.

We pass into the gorge at 10 a.m. There is not a breath of wind, the sun is burning hot, the temperature is that of a furnace.

We proceed slowly, sometimes trying to stick to the trail which winds along the valley, sometimes descending to the sandy bottom of the wadi. Our cars take up dangerous positions which are at variance with all the laws of equilibrium.

At midnight we find ourselves at the foot of an enormous rock called Takount Arrak. The Tuaregs call it "The Junn's Fastness." We feel some whirls of sand. Is it the angry goblins who throw it in our faces for having violated their retreat?

We fill up and lunch hastily, to continue on our way across fantastic heaps of rubbish. The old trail has disappeared.



THE GORGES OF ARRAK.

Facing p. 76.

Towards the Hoggar through Tidikelt

The landscape is very varied. Sometimes, after a narrow passage cut through solid rock, between two vertical walls which rise straight up till they border a thin ribbon of blue sky a thousand feet above our heads, we suddenly come out upon a large amphitheatre with a splendid vegetation of rushes, tamarisks, and *lethels*.

In the twilight we approach Amzir, a well situated at the end of the gorges. Just before we arrived there we had our first encounter with the Tuaregs. The mysterious race of veiled men was revealed to us in a rather theatrical manner by a young warrior of magnificent stature who stood calmly gazing at us, his features not expressing the slightest surprise. He was erect, immovable and sculptural, proudly leaning on his spear, in front of a rock beyond which we could perceive his camp. He looked like a young god of the solitude.

Two Chaambas of the Amzir post arrived at a trot on their camels, jumped to the ground and presented arms. They also were magnificent, with a simple and noble beauty which harmonised well with the savagery of the scene.

The well is barely a hundred yards away. We find there a Chaamba brigadier who offers us milk, his only wealth.

Night falls. At 6 p.m. we start again and soon are out of the gorges.

The day has been tiring and very hot. The mechanics are rather done up. We take it in turn to drive the cars while they sleep a deep sleep, fastened by the belts of their rifles so as not to fall out.

At 10 p.m. our lamps light up some white running

Across the Sahara by Motor Car

phantoms standing out from the dark background of the big *lethels*. It is the small post at Meniet hastening to take up their weapons.

We make a short halt at Meniet, and start again into the night. The ground is soft and heavy, and the going is slow. The last cars roll along in a veritable cloud of white dust.

The mechanics whom we have relieved are fast asleep.

We stop at eleven o'clock for a rest, and then we take up the trail of our provisioning cars. Shall we be able to proceed like this through the night later, when we shall have no longer any trail to guide us ?

At one o'clock in the morning we perceive Tesnou, where we are glad to find the two Estienne cars and the mechanics Remillier and Piat, who were rather concerned to know how we got through the gorges of Arrak, which they had had much difficulty in passing.

We also found Lieutenant Bergounoux, a young Saint-Cyr man full of go and distinction.

Lieutenant Bergounoux is already an old friend, for we had occasion to take him from Wargla to In Salah at the time of our first provisioning expedition to that post.

The last lamps go out at 2.30 a.m. and the camp goes to sleep under the guard of a platoon of Chaamba meharists.

TESNOU, *December 26th*.—What a surprise on leaving our tents ! The camp is on a sort of buff-coloured beach at the foot of a harmoniously rounded mountain, whose presence we had not suspected last night.

Towards the Hoggar through Tidikelt

On the east, some rocks of grotesque aspect, resembling apocalyptic beasts and skulls of giant reptiles, overlook our cars. On the summit of one of these rocks, standing motionless like a fine statue against the blue sky, a meharist searches the horizon.

To-day we shall not start till after lunch. We must let the mechanics have a rest and then look to the careful greasing of the cars. It will be our only rest before the Niger and Timbuctoo.

Lieutenant Estienne is now going with us. Up to Tit he will conduct a provision car which we have decided to take with us in order to assure our stock of petrol more completely. The two cars of his brother René will return to In Salah with our letters, taking a new track which avoids the difficult passage of the gorges of Arrak.

About 10 a.m. the sun beats down with great force.

We lie on the hot rocks to examine the time-table of the route and write the notes and letters which will soon leave for the north. After one of the rare comfortable lunches which we have taken in camp since the start, we prepare for our departure. We say good-bye to our little provisioning party, to Lieutenant Bergougnoux and to his faithful Chaambas.

At 1 p.m. we leave those lovely mountains. Lieutenant Bergougnoux gives us a joyous "au revoir" while, fixed in an impeccable pose, his Chaambas present arms. No doubt their thoughts will follow us to that Hoggar which their race could never reach until we took them there and to that Tanesrouft which to them is the land of greatest terror.

On leaving Tesnou we travel over a fine even-

Across the Sahara by Motor Car

coloured sand from which beautifully rounded mountains stand out, capped by rocks of grotesque outline which recall all the monsters of palæontology and even of legend.

Here are small hidden weds where our winding way is interrupted by rocky passages of real difficulty.

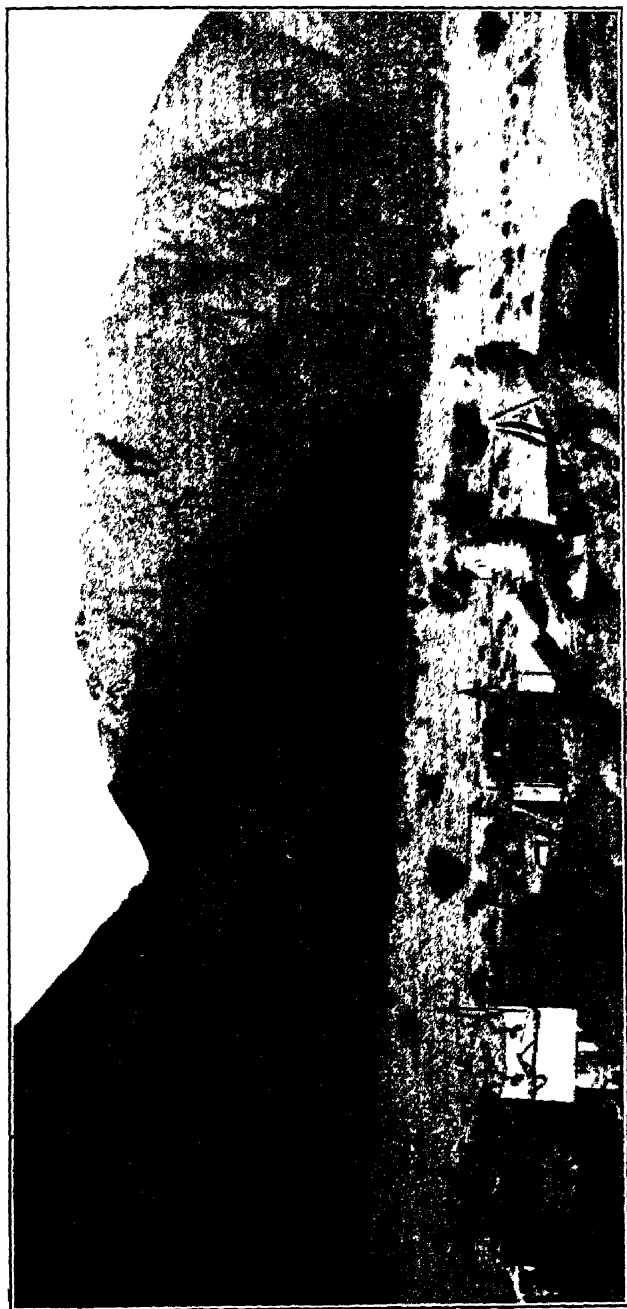
About 3 p.m. we debouch into a wide sandy valley. Our cars roll along easily. Distant mountains rise to the east and the west. On the map they are called Taurit.

At 4.30 p.m. we start towards the east and cross a narrow breach between two cliffs with jagged peaks, then we take a more southerly route, and soon catch sight of the Iniker range, where we expect to halt to-night. In the east, 12 miles away, other mountains rise ; these are the Mellet and Edefest ranges.

In the west we have low mountainous regions. Night falls. We stop a few minutes to put on more garments, for the very hot afternoon had allowed us to proceed without greatcoats and even tunics.

The moon rises. Our route is difficult to recognise. It is only marked by a few stones, but the Iniker mountains are a good sign-post. We soon follow the important rocky range which we had already seen before sunset. We cannot estimate its size. We always expect to pass it, but we have gone six miles and still see its rounded bosses in profile against the sky. It is an immense flow of greyish-blue lava which in some places, under the moonlight, takes up livid tints mixed with a paradoxical absolute white, flashing and scintillating as if the stone were covered with enamel.

We pass close to the intermittent well of Iniker



THE WELLS OF TESNOU.

Facing p. 80.

Towards the Hoggar through Tidikelt

without noticing it. This is of no importance because our water reserve is sufficient.

At 9 p.m. we halt under the lee of the rocks and quickly put up our tents. We must be some 12 miles north of In Amguel. Round us the solitude is complete. It is the great silence of dead lands. One must have known these Saharian nights, the immobility of the grey rocks, tragically erect above the infinite plains bathed in bluish moonlight, to understand the complete sense of the word "silent." Silence here is something tangible, a natural physical force like gravitation, cold, or the electric fluid, a constraint to which we submit, an imperious tyranny which is imposed and against which one hardly dares rebel, speaking low as if the sound of a loud voice were a sort of sacrilege.

Our lights throw a dazzling illumination on rigid mineral surfaces. The landscape around us has no semblance of earth. We think of the sight of those dry craters on the surface of the moon which the telescope reveals to us in their desolation.

We start at 4 a.m. in the black night. We follow our itinerary without too much difficulty. In a few miles we have a difficult rocky passage near In Amguel.

At 8.30 we reach In Amguel, the first little Targui village of the Hoggar, only inhabited by Imrads (servile tribes), because the noble Tuareg prefer to live under tents. In Amguel consists of some miserable hovels of mud-bricks, but the gardens round them are fertile and well cultivated.

We have great difficulty in crossing the wad in which these gardens are planted. Reeds grow to an imposing height and almost completely block our

Across the Sahara by Motor Car

passage. Yet our cars vanquish this novel obstacle. They leave behind them a deep furrow resembling three elephant tracks which ivory-hunters encounter still farther south in the marshes of the Bahr el Gazel.

In leaving In Amguel, we traverse for some 12 miles a very mountainous region. Passage is often very difficult, and our cars cross over rocks and formidable clefts.

Suddenly, at ten o'clock, the whole great mountain range of the Hoggar appears before our eyes. It is the Land of Fear, the true centre of the Sahara. It rises before us in all its mystery. We recognise the great Koudia and Illiman Peak, which is about 8,000 feet high.

This sharp peak shows up clearly against a sky of blue enamel. Its base is lined with delicate shadings by the gorges, some of which are still inviolate. What do they hide in their deep grottoes? Marvellous palaces, perhaps, where the fairies and the *junn* live away from the gaze of man, or maybe the voluptuous and fateful mansion of Antinea. One remembers the strange fate of Morhange and Saint-Avit. But who could call it cruel, this symbolic fate in which the art of a novelist has so well expressed the mysterious charm of the South? Magic beauty of the blue night, the joy of wandering without a goal in its light, the inexpressible languor of a rest won perilously and tasted beside the springs towards which the great white date-palms bend like long lashes on an eye full of seduction, the perfume of the fire of *retem*, the changing colour of the sand at sunrise, the splendour of the twilight which gives to the palpitating dunes the wondrous likeness of a young bosom unveiled—that

Towards the Hoggar through Tidikelt

is the smile of Antinea,—that profound, imperious, irresistible appeal which arises from the hot earth !

The ghosts of Morhange and Saint-Avit arise and disappear, to make room for the remembrance of the great Dead whose names we must venerate when we have, after their departure, tasted the lips of the enchantress. We greet ye softly, before this Hoggar which arises like your cenotaph, ye who were the true lovers of Antinea, Duveyrier, Flatters, Flag-Lieutenant Aube, Colonel Bonnier, Marquis de Morès, Commandant Molle, Camille Douls, Colonel Lebœuf, General Laperrine !

We run at some distance parallel with the Hoggar range, constituted by numerous parallel chains having a general north and south direction, and cross numerous weds.

At 1 p.m. the mission halts in the bed of one of these dry water-courses, in the shade of a great lethel-tree, and then resumes its journey towards Arrem Tit.

It is very hot. A strong wind from behind sends all the dust of our cars back upon us. In the bottom of the valleys the air becomes unbreatheable.

At 2 p.m. we arrive in a region of slight vegetation. We seem suddenly to be in France, at Nîmes, where one descends from the Cevennes into the Rhône valley. It is in such familiar-looking country, where only the distant mountains strike an original and less monotonous note, that we see for the first time the sinister veiled men of the desert assembled in *rezzou*.

Yet these Tuareg are friendly. They hand us telegrams which were entrusted to them by Lieutenant Vella, Resident of the Hoggar, and announce that

Across the Sahara by Motor Car

that officer arrived at Arrem Tit last night, with the Amenokal Akhamouk and all the nobles of the district.

It is well to give a martial air to the mission for the reception which is being prepared, so we unmask our machine-guns.

2 p.m.—Here are the Tuareg. They advance at a lively pace, all proudly mounted on their fine-footed meharas. Their leather bucklers, their cross-guarded swords, the *litham*¹ which covers their faces, only allowing the eyes to be seen, their long lances, and the blue garments which envelop them, give them a most mysterious aspect. These warriors of a bygone age are ranged under their chief, the Amenokal Akhamouk. The Amenokal is a true sovereign after the manner of the old Shepherd Kings. It would be hazardous to link the great white nomads of the African desert with the almost fabulous conquerors of ancient Egypt. Yet, with his ample and well-draped vestments, their artistically blended colours, and his enigmatic face carefully hidden under a black veil, this personage of noble and easy carriage reminds us of those mysterious Hyksos from the Sinai peninsula which we find descending on the Nile valley at the end of the Fourteenth Dynasty, whose power is revealed by the funeral cartouches engraved on the most ancient monuments of the Delta.

Since the classical work of Duveyrier, published in 1864, much has been written about the Tuareg. Let us simply recall that these Berbers of the Sahara form four confederations each with a mountain range as a

¹ *Litham*, a black veil with which the *Tuareg* (sing. *Targui*) cover their faces.

Towards the Hoggar through Tidikelt

centre : Hoggar, Azjer, Aïr, and Adrar, whence they radiate at long range over the desert.

The Tuareg of Hoggar were for a long time the masters of the oases of Tuat. The Azjer tribe holds effective sway over Ghat and Rhadames. One of their fractions even inhabits a suburb of the latter town.

Before accepting French dominion the Hoggar men organised warlike expeditions thousands of miles from their mountain fastness. They are marvellous untiring camel-riders who can persuade their dromedaries, which are carefully selected, to give an amount of work which seems in flagrant contradiction with these large animals with slender feet, narrow chests and long white necks.

Thanks to the skilful policy of General Laperrine and the influence of our Saharian officers, the Hoggar men have of late been our auxiliaries. It is not the same with the Azjer men who, near the border of Southern Tripoli and Fezzan, are under Senoussi influence, and some of whose subdivisions furnished to our old enemy, Sultan Ahmud, his best supply of warriors.

The Tuareg of Aïr, called Keloui, are nearly all half sedentary. By constant crossing with the black women of indigenous tribes they are gradually losing their ethnological character.

In contrast with their brethren of the Hoggar and Azjer, the men of Adrar, the "Aulimmiden," are not only camel-riders, but horsemen as well. Their septs formerly dominated the whole bend of the Niger, after throwing back the Tademekkes and crushing the Songhaï empire. When we took Timbuctoo they

Across the Sahara by Motor Car

were the masters of the town, to whom the resident population paid a crushing tribute.

We shall have occasion to meet them in the plains of the Soudan.

The Tuareg are divided into noble septs (Shaggaren) and servile septs (Imrad). Their social organisation has an element of feudalism, but, contrary to what happened in our own Christian Middle Ages in feudal times under Salic law, and to what happens in all Mahomedan society, descent is reckoned in the maternal line. We must see in this custom a survival of the matriarchate which, according to certain savants, was the primitive state of all human groupings in the course of organisation. The matriarchate still rules in India in certain Himalayan tribes, where the women practise polyandry. If polyandry ever existed among the Tuareg it is found there no longer, but the Targuia woman has remained very free. As a girl she knows all the sentimental and other subtleties of flirtation. As a married woman she easily divorces by caprice, solely in order to have the right to receive in her tent a new husband.

The Tuareg speak Tamashek, an old Kushite idiom, no doubt the same as that of their ancestors the Numidians. This language is closely related to all the other Berber dialects spoken in North Africa, such as that of the Algerian Kabyles, or the natives of the High Atlas in Morocco, the Matmatas of South Tunisia, and the mountaineers of Tripolitan Jebel.

Tamashek has a written language called tafarek (plural : tifarh) which is related to Punic.

The Tuareg have retained an ancient custom of



AMONG THE HOGGAR MOUNTAINS.

Facing p. 86.

Towards the Hoggar through Tidikelt

commemorating events by means of inscriptions engraved on rocks.

They are lukewarm Mahomedans. They never observe the Ramadan, do not make ceremonial ablutions, and abstain from bleeding slaughtered animals as prescribed by the Koran.

We are introduced to the chief of the Imoharh (as the Tuareg call themselves) by Lieutenant Vella, Resident of the Hoggar. Akhamouk bows. We bow, and our hands clasp his. He says he is happy to receive us and wishes a complete success to our bold enterprise. His words ring true. If this man was formerly our adversary, he was always an upright enemy, and to-day he is completely won over to the cause of France. We respond to this compliment by saying how proud we are of the friendship he shows us.

A sudden noise interrupts our conversation. Why have all the noble personages round us abandoned their statuesque pose, why do they make guttural exclamations and burst into laughter? Many are surprised to the extent of raising their *lithams*. It must be an event as unexpected as formidable to make them defy the protocol to that extent.

The event was the appearance of Flossie.

Our mascot had been sleeping under the awning of one of our cars. On awakening she had jumped down to rejoin her master.

Never had our hosts seen an animal of this kind.

"It is a sheep," guessed one of them.

But Flossie could not let that pass. As a proof of the nobility of her race, she raised her voice.

The effect was irresistible. "It is a dog," cried the Tuareg.

Across the Sahara by Motor Car

They³ could not get over it. A dog of the size of a fenek (small desert fox) whose body is covered with a fringed fleece of white wool. Did anyone ever see such a prodigy !

As regards the caterpillar cars, the Hoggar men showed little surprise, and when we proposed to the Amenokal to try this method of transport, so new to him, he took his seat in the car as naturally as could be while one of us worked the steering-wheel. It took Flossie to shake the noble Tuareg out of their habitual reserve.

At 3 p.m., preceded by our new friends, we descend to the banks of the Wed Tit, where a reed hut, a coquettish and picturesque little place, has been constructed for our use.

The small leather tents of our hosts rise around us. Most of them are backed by large and strangely formed rocks. As we arrive in camp, the war *tobol* (drum) resounds. It is an extremely high honour paid to us, for the *tobol* is only beaten on great occasions.

In a corner of the camp the Imrads dance to a wild measure, flourishing their muskets.

Assembled on a hillock, the women watch our arrival. They are motionless, as if fixed in the attitudes of idols.

The day has been a tiring one. To-morrow our departure will not take place till the end of the morning, perhaps it will even be put off till the afternoon.

In our reed hut we compose the telegram announcing our arrival in the Hoggar, which we shall immediately despatch by a meharist to the post of Taman

Towards the Hoggar through Tidikelt

Rasset, situated in among the mountains, 25 miles from here.

TAMAN RASSET, 8-28-12, 10 p.m.

After two days of rest we started on December 24th at day-break. We crossed the vast plains of Tidikelt, swept by the winds and strewn with the corpses of camels. Then we left the sandy desert to enter the stony desert. Our cars tackled this new ground without slackening their regular pace, which, even in a trackless waste, is on the average over 125 miles a day. On Christmas Eve we camped in the last blue mountains of the Mouydir, on the border of the Hoggar. On December 26th we came through Arrem Tit into the territory of the "veiled men," in the Hoggar or "Atakor," as the Tuareg call it, the real centre of the Sahara.

HAARDT AUDOUIN-DUBREUIL.

After composing this bulletin of victory, we went out. The Tuareg surrounded us, and we distributed presents to these great desert pillagers, who found what we offered them very appropriate. Formerly, before we were masters of the country, they would have massacred us in order to take the things themselves.

As we had expressed a desire to greet the noble ladies of the tribe, these came into the tent where there is to be a *diffa* served in our honour to-night.

Here is Dacine, the relative of the Amenokal, the poetess of the Hoggar. Dacine, they tell us, had many adventures. She was a *grande amoureuse*, the Ninon of the desert. Tallemant des Réaux would have garnered an ample harvest of *Historiettes* from her life. Her rather stormy past does not, however, diminish the respect shown to her by the warriors, nor her very real ascendancy over the tribes.

Across the Sahara by Motor Car

The Amenokal's young wife is beside her, pretty and plump, with a face coloured with saffron.

After having introduced their wives to us, the husbands retire in order to allow us to converse more freely with them. In the Hoggar it is bad form to appear jealous.

Flossie is there, sniffing about everybody's calves. She is the same success as she was with the men.

The girls receive us in their own tents. They are much more shy than the married women, or perhaps only more coquettish. All laughingly veil their faces at first, but the veil falls of its own accord as we offer them pearl necklaces and glass trinkets.

Lieutenant Estienne addresses incessant *matoulem* (compliments) to these ladies and young girls. "It is just like being in some select 'bar' of the metropolis," he says.

In the evening, the Amenokal invites us to a *diffa*.

It begins with a splendid *couscous*, which is, however, seasoned with sand, and grates on the teeth.

Then comes the *méchoui* (roast sheep). We have often been received by the great Arab chiefs and know all the kinds of *diffa*, but we are surprised when the *pièce de résistance* arrives.

These magnificent Tuareg, so noble and elegant, eat with a truly extraordinary savagery. Some of them will bite into a whole leg. When the meat offers any resistance, they will cut it off at the level of their mouth with a knife, and amiably pass on to us the remaining piece. Others will tear off a rib with their hands, and handle it and knead it well before presenting it to us. We never saw such a repast. There are no ewers for washing hands, as among the Arabs. If the

Towards the Hoggar through Tidikelt

Tuareg get their hands greasy, they profit by the occasion for rubbing them over their faces, their legs and thighs, with the object of making them shiny and beautiful.

Very late in the frosty night we retire into our reed huts. They are surrounded by little crackling fires, round which the Tuareg sit and talk.

There is bright moonlight, and no wind. Sweet and mysterious notes of the *amzad* (one-stringed violin) are wafted about us. A woman sings in a slow and unknown rhythm which lulls us and fills our souls. Silence falls gradually over the barbarous camp among the high mountains.

ARREM TIT, *December 28th*.—In the morning we proceed with the overhauling of the cars. Some old slaves fetch water from a spring not far away.

Before quitting the Hoggar and plunging into the Tanesrouft, where we shall be several days without encountering wells, we must fill our tanks as full as possible, for fear that an error of direction, a sand-storm, or an unexpected accident might oblige us to remain longer in the Desert of Thirst.

We could take this precaution at Silet, the last small oasis on the edge of the Tanesrouft, but that might mean a great loss of time, as we do not know the capacity of the Silet well. Besides, the water at Tit is better.

At 4 p.m., a last inspection of the cars. All is ready to tackle the Tanesrouft.

Lieutenant Vella counsels great care in our journey, especially when in the Abedoun range on the level of Tin Rhero. We shall there be on the trail of the

Across the Sahara by Motor Car

robber tribes of Rio de Oro, the Ooled Jerir and the Reguibat, whose *joosh* sometimes pillage caravans 2,000 miles from their haunts, as far as Aïr.

The Tuareg accompany us for some distance, then we continue to Abalessa, a small oasis situated about 25 miles away.

About 5 p.m. the Hoggar mountains we are leaving diminish in the distance. Twilight falls quickly. The peaks turn blue, mauve, pink, and finally disappear in the night.

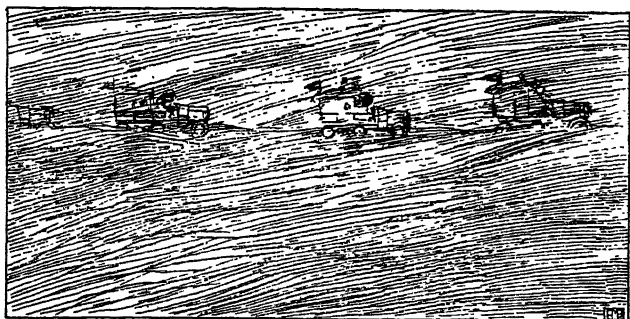
We leave the Land of Fear and enter the Land of Thirst.



CHAPTER IV

THE TANESROUFT, THE LAND OF THIRST

Silet, the last Oasis—How one Dies of Thirst—Towards the Unknown—The Mysteries of Mineral Life—The Smile of the Tanesrouft—The Sand-Storm—Chasing the Long-eared Moufflon—Flossie's Confidence—Suspicious Traces—The Red Fire—A False Alarm—Automobile Somnambulism—Ahmed ben Fellali watches over the Camp—Tin Zowaten—Precision at the Rendezvous—French Champagne—On the way to Timbuctoo.



December 28th.—The mission has left the Hoggar. It was black night by the time we reached the Wed Abalessa, 30 miles from Tit. Its banks are very steep and its very sandy bed is encumbered with great blocks of stone. The passage is difficult, and has to be preceded by a reconnaissance on foot.

Lieutenant Vella has given us a guide for the whole crossing of the Tanesrouft. He is a native of Wargla, married in the Hoggar, and his name is Ahmed ben Jellali.

Ahmed ben Jellali has always been a faithful servant of France. He has had sixteen years of service and numerous campaigns, and has been wounded several times. As he owns several camels, his dream is to engage in trade with Agades. What services can he render us? The native guides chosen by our officers are, generally speaking, absolutely devoted, and their local knowledge is incontestable. Yet the automobilist must only follow their guidance with great circumspection, as these people are in the habit of calculating, by the rate of going of their camels, not the distance, but the *time* which separates two points on the route. Now the speed of the motor car multiplies this rate by a factor of which they can

Across the Sahara by Motor Car

form no idea. This produces in them a veritable vertigo which may amount to the absolute loss of the sense of direction. In such conditions, the best guides can lead one into serious and often fatal errors. All their indications must be verified by the compass. We always did this, and had no occasion to regret it.

At the thirty-first mile, on the occasion of a difficult piece of steering on a steep slope, one of the cars was hurled on to a block of stones. Its left-hand driving pulley was split. We had spare pulleys with us, but would it not be better to keep them in reserve? Lieutenant Estienne went back to Arrem Tit to take this part from the provisioning car we had left there. We went into camp to wait for him.

December 29th.—At 4 a.m. the sound of a klaxon announces the arrival of Estienne. The repair is quickly accomplished, and the departure can take place at daybreak.

We leave the mountain region and traverse wide and slightly undulating spaces. The territory is volcanic, streaked with lava and strewn with pumice.

At 9 a.m. we reach Silet, the last oasis of the Hoggar. There we find a small spring, the ruins of an old bordj, and some neglected palm-trees. We shall see no more palm-trees till Kidal.

Two men and three women live in this forsaken place. The latter are Tuareg, while the men are Moors formerly captured by the Tuareg in battle and taken into slavery.

We rapidly overhaul the cars and complete the watering begun at Tit, for there will be no more wells

The Tanesrouft, the Land of Thirst

till Tin Zowaten. We reckon the waterless country at about 250 miles, a lifeless strip which the boldest caravans never tackle without anxiety. We, full of confidence in our caterpillar cars, and disposing of the element of *speed* which logically reduces all the risks to a minimum, tackle this quintessence of the desert with a light heart, though it is the last word in aridity and desolation.

We had, of course, to think of the possibility of a detour or stoppage by engine trouble or a sand-storm. By rationing the kitchen, and barring trouble with the radiators, we shall have water for twenty days.

We serve out a few drops of the welcome kola to each man. Taking hold of his steering wheel, Maurice Penaud clinches the situation by saying to one of the Moors who are helping : " And now, old chap, pass us the Key of the 'Tanesrouft.'" Everybody laughs except the Moor, who does not understand our mechanic's pleasantry. His injured air increases our hilarity. We regard this bit of the truly French spirit as a good omen in tackling the Tanesrouft.

At 10 a.m. we leave Silet.

We are now in altogether unknown country. The principal feeling is one of curiosity, not unmixed, perhaps, with some anxiety. This Land of Thirst has such a sinister reputation.

The surface of the desert is at first covered with an impalpable black dust in which our caterpillars trace great white rays, giving a most curious effect.

About noon this immense screen is covered with the deceptive lakes of the mirage. Their sparkling banks ever recede as we advance. We pursue them till evening, when the twilight suddenly engulfs them.

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What suffering must this unreal water have meant to travellers whose water-bottles were empty !

On entering the Tanesrouft one is necessarily reminded of the many tragedies of thirst of which it has been the scene. Death from thirst is surely the most horrible of all, since it takes the victim atom by atom with cunning slowness and all the refinements of a Chinese executioner. It is a great shock to see the corpse of a person dead from thirst. It is a dried mummy. The skin has the colour and consistency of leather and is frequently covered with ulcers, as if the body, burnt by an inner fire, had in its agony opened new mouths to tell of its suffering and to ask for drink. Generally the victims of thirst are naked. They have thrown off their garments one by one and cast them behind mechanically, almost automatically, in the hope, no doubt, of lessening the burden which was bending them down to the ground. A very distressing feature is that a moment arrives at which the person dying from thirst can no longer be saved. After that moment water is a veritable poison. He would fall dead if his lips touched it.

About 1 p.m. a sharp peak appears on the horizon. It is a rocky pyramid. Other isolated mountains of the same form follow. Around them is gathered a soft sand in which we sink a good deal, but which does not stop us. We are going due south, in an absolutely arid country.

At nightfall every landmark fails us and the itinerary becomes difficult. The leading car has to wait for the others. These emerge at last from the darkness, like animals hunted out, a primitive fauna



LIFE FORMS IN STONE.

Facing p. 108.

The Tanesrouft, the Land of Thirst

left behind in this desolate region of the earth where Time seems unable to gain a footing. They pant along like plesiosaurs among rocks which themselves are monstrous, some of them recalling the vast skeletons of the great dinosaurs of the Jurassic, others, like giant cryptogams, taking the mind back to even remoter epochs.

At 8 p.m. there is an unusual and disquieting noise in the gearbox of car No. 2. We stop and examine it. A bolt is fouling the steering wheel. The box is opened. The bolt is not lacking anywhere, and must therefore have dropped in during assembly. But how is it that it did not stop us before? Mechanism sometimes has mysteries which we must not try to unravel.

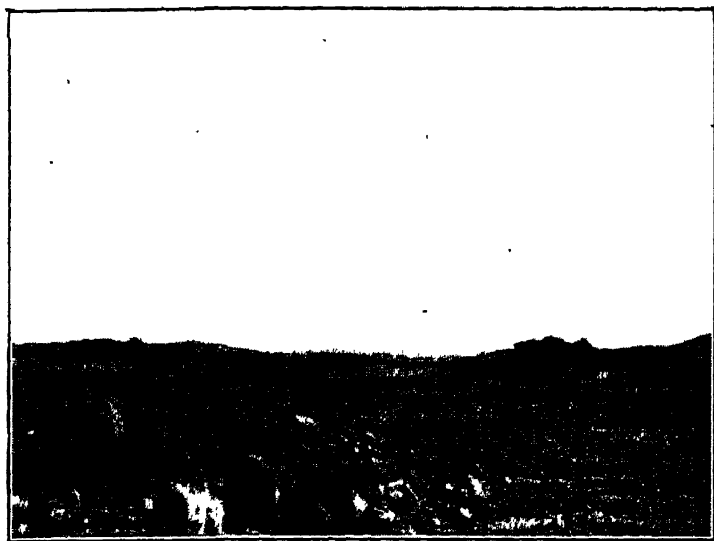
The country becomes more and more desolate. Even a band of pursued marauders would not think of crossing this region. We have taken a route on which no human being appears for some fifty years at a time. The caravans pass more to the east or the west, in order to touch either the well of Tin Rhero or those of In Zize and Timissao. The military couriers who go from Kidal to Taman Rasset avoid the place where we shall sleep to-night, although they endeavour to take the shortest cut. It is the Grand Solitude.

While the gear-box of No. 2 car is being refitted we put up our camp. It is cold, but not so cold as it was at Arrem Tit.

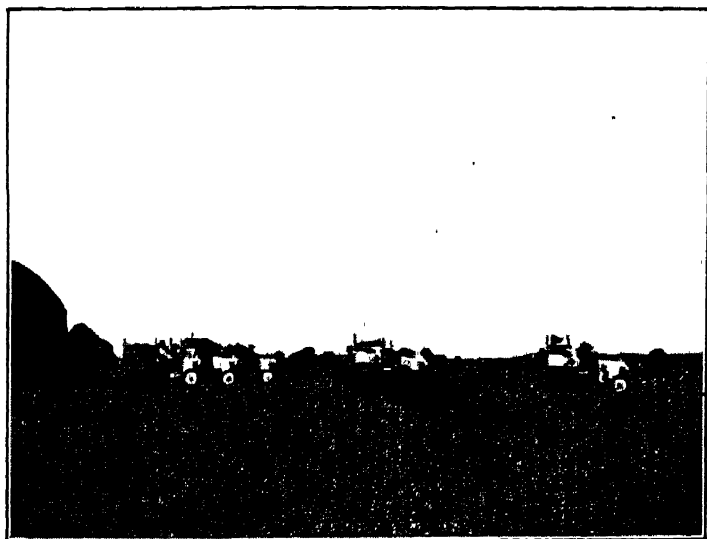
Above our heads, in a deep velvet sky of a heavy blue, there floats a brilliant moon surrounded by a white circle. It throws silver darts over the *reg*. Farther away are fantastic bunches of clouds whose

Across the Sahara by Motor Car

scalloped edges seem luminous, as if formed by a translucent crystal illumined by an inner flame. Growing in deep silence and in a torpor unrelieved by any sound, not even by the chirping of an insect, this vaporous sierra evokes, if not the nightmare of a fever, then at least the aspect which must be shown in the depths of cosmic space by the landscapes of certain heavenly bodies without an atmosphere, and therefore without life. Yet an obscure life pervades this mysterious country, the most rudimentary life of all, the life of minerals. Fantastic as this may seem, stone has means of struggling against the destructive agencies leagued against it. Saharian rocks are always black or reddish. This desert patina has been studied by savants who found that it consists of an exudation of a chemical substance destined to varnish and harden the surfaces exposed to the uninterrupted assaults of wind, rain, heat, and cold, which are the principal feature of that slow erosion by which disintegrated mountains are transformed into sand-dunes and the dunes into a sedimentary agglomerate destined to fill the beds of rivers and dry up the world. Is the instinct of self-preservation, then, a universal law extending beyond the limits of the animal and vegetable kingdoms? The Tanesrouft gives us a palpable proof of it. Does it not make one shiver? In one of their books, a sort of hallucinating nightmare which imaginative literature has never surpassed, the Rosnys et us watch the struggle of the first men against the enigmatical race of the Xipehuz, which are animated stones attempting to enslave the world. If the sons of Adam had not triumphed over the Xipehuz, what would have been the goal of terrestrial evolution?



AT SUNRISE.



IN THE HEART OF THE TANESROUFT.

Facing p. 100.

The Tanesrouft, the Land of Thirst

Sweating chemical substances in order to harden their skin and to defy the erosion which is their form of death, the black and red rocks of the Tanesrouft offer to the mind a formidable field of speculation which will perhaps solve this question.

December 30th.—Up at 3 a.m.; start at 4. We roll along for two hours in the night. As we proceed the terrain gets worse and worse. There is a soft *reg* in which we sink terribly. It is often strewn with large pebbles and continually broken by deep clefts, difficult to cross. Our cars are found to indulge in constant and tiring gymnastics, and the drivers have to exercise their utmost skill. Their good-humour is not spoilt by such a trifle. One of them declares that this sort of exercise would be excellent training for “looping the loop.”

At sunrise, a mountain range appears on our left, some 120 miles from Tit. For some time we go east. The soil has become hard, and shows an exquisite buff colour. It is the first smile of the Tanesrouft.

On our left, towards the east, there are still the peaked mountains. About 7.30 a.m. we must still be at the level of Tin Kowin. We cross small weds with very flat bottoms strewn with a few little yellow plants, the first since Silet. In the west there floats a sort of almost imperceptible veil, in which anyone having experience of the desert can recognise, with some anxiety, the precursor of the simoom. Like mariners watching the signs of a storm, we see the mist rising and turning reddish and turbulent. It thickens and spreads, and soon covers the whole

Across the Sahara by Motor Car

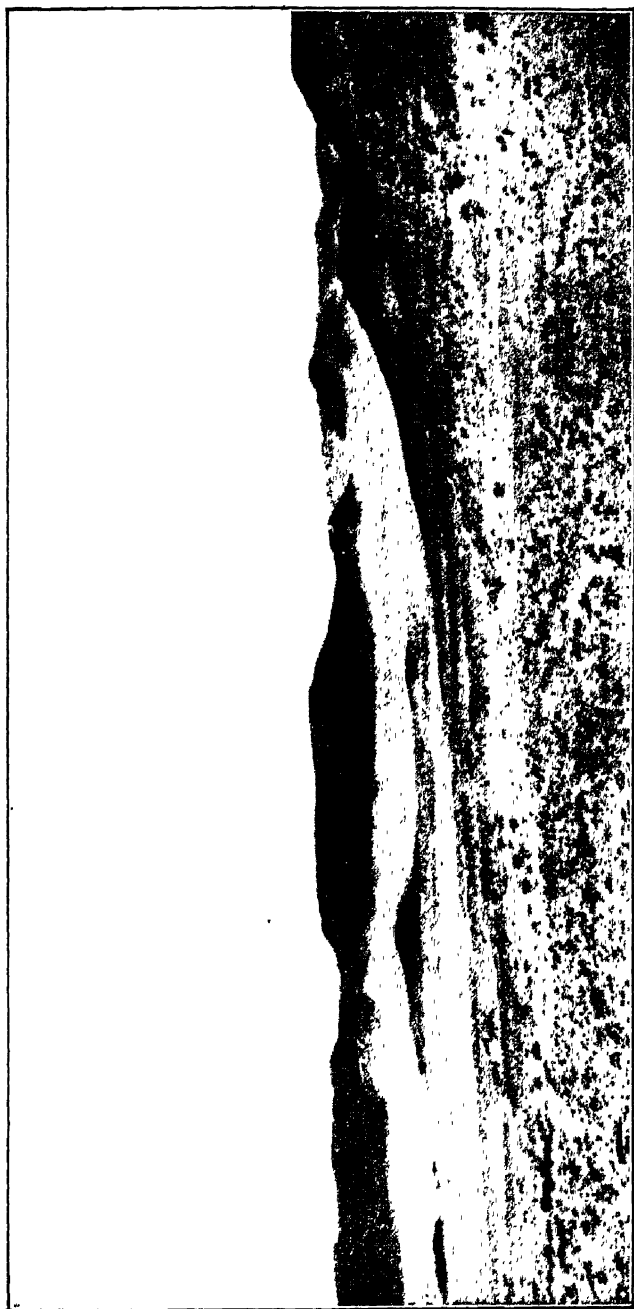
horizon. Suddenly its first breaker unfurls over our cars and lashes us brutally in the face. Regular waves of sand break over us. We are enveloped in an opaque atmosphere, so dense that it seems almost solid. The cars have to follow close upon each other so as not to lose touch.

In this turmoil one thinks of all the stories of caravans engulfed which are told by camel-drivers when speaking of the Tanesrouft. Are they mere legends? No, the Tanesrouft is the country of mysterious disappearances. It happens sometimes that travellers lose their lives and all their goods, like certain ships in the sea. Starting from Silet on a beautiful evening, they never reach the "other shore." This tragic fate befell the family of the Amenokal Akhamouk, whose father, mother, brothers and sisters completely disappeared in trying to cross this land of terror and death, and nobody ever succeeded in finding their bodies or even their trail. A hot shroud had covered up everything.

We stop frequently. We are plagued with hunger, but it is impossible to eat, for hardly have we opened a tin of food when it is instantly smothered in sand. We only succeed in munching some bits of dry bread by squeezing against the body of the car on the lee side, and even so we swallow a lot of sand. We are entirely covered with it. The sky is the colour of raw brick and the strange light which filters through the fog gives us a cadaverous aspect.

The Tanesrouft has become sinister and will remain so till nightfall. But then the simoom goes to rest.

At a distance of 220 miles from the Hoggar a



THE FOOTHILLS OF IN TEDAINI.

Facing p. 102.

The Tanesrouft, the Land of Thirst

mountain range appears towards the east, the first buttresses of the Tebel. We roll along a fine *reg*, strewn with great blocks of a blue stone, showing up against a yellowish horizon streaked with orange bands.

The setting sun clothes the sky and the desolate earth in colours so rich and varied, and yet so diaphanous, that the twilight becomes a thing of awe; it strengthens the vertiginous impression of another planet, or the painful gestation of our own, or its agony, which is presented more and more by this mysterious Tanesrouft as we penetrate into its recesses.

Suddenly we see before us, in the last whirls of the tempest, an immense herd. What can it be in such a desert region?

"Probably mouflons," ventures a mechanic.

"Then why annoy them?" says Maurice Penaud. "They appear to be awkward brutes. A butt with the horns into the radiator would be a quick job, and we have yet some way to go to Timbuctoo."

It was a wise reflection, but the instinct of the chase is stronger than all the counsels of prudence.

We make for the herd, Maurice Penaud first. But the "mouflons" have a strange shape. Their "horns" seem to be articulated, and point towards us. Besides, the animals stand their ground. The shock will be hard. 'Ware radiators! Maurice Penaud was right. Another 300 yards and we are in contact with the enemy. But there is a burst of laughter from the cars. Our "mouflons" turn out to be wild asses!

Flossie is the least surprised of all of us. She even seems to look upon us rather quizzically. A vigilant mascot, taking her part seriously without

Across the Sahara by Motor Car
Across the Sahara by Motor Car

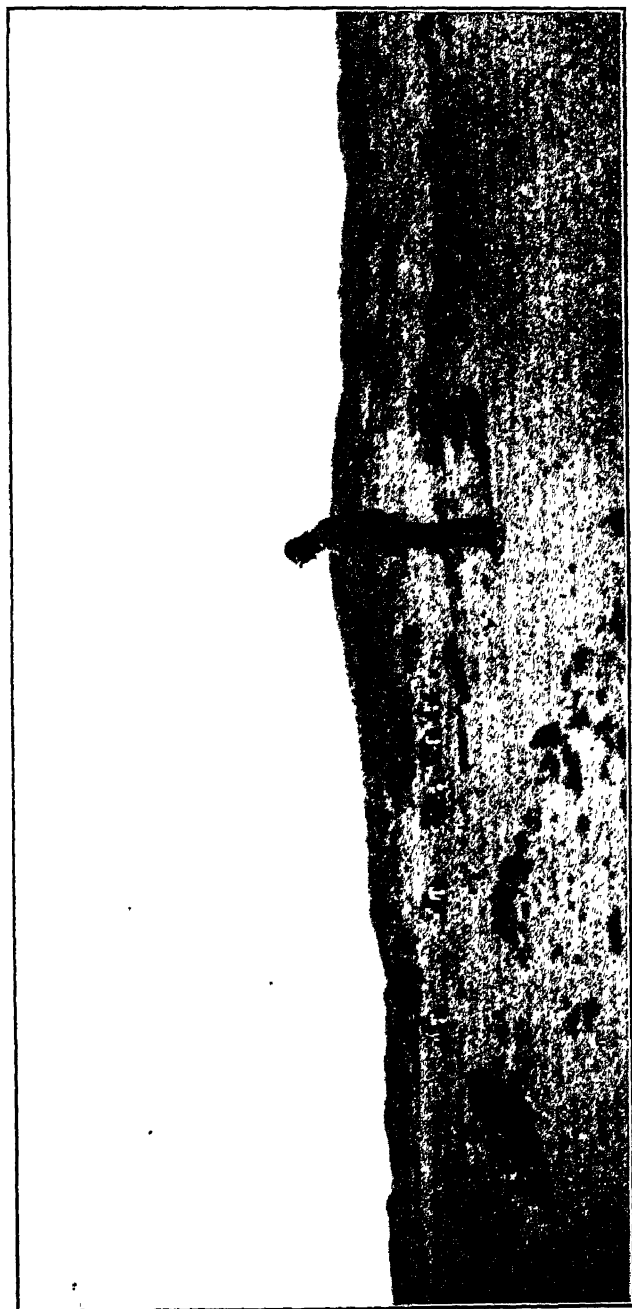
seeming to do so, she had, no doubt, identified those animals as soon as they appeared. She knew there was no danger !

Many herds of wild asses are found in the Adrar of the Iforas, and we are within 30 miles of it.

Shortly after this encounter we traversed a very wide and flat wed, feebly marked out, in which we found colocynths growing. This gave us the explanation of the presence of the asses in this region of the Tanesrouft. These animals are very fond of colocynths, the juice of which serves as a drink, which enables them to live whole weeks away from the pools where they ordinarily drink.

The wind has quite gone down. It is 6 p.m. Overcome with fatigue, we should like to stop, but here we find on the black *reg* fresh and suspicious traces of camels cutting across our route. After a minute examination, Ahmed ben Jellali and Chapuis agree in diagnosing the presence of mountain camels. An important caravan has passed that way in the course of the day. What was its composition, and what does it want in this inhospitable region ? We think of those marauders from Rio de Oro against which Lieutenant Vella has warned us. Better not risk such a neighbourhood. Forward ! In spite of our fatigue we push on.

Night falls completely. The cars follow each other at short distances. From time to time the man directing the leading car turns round to count them. Their lamps shine in the darkness like great phosphorescent eyes, projecting a livid beam on the black uniform monotonous *reg*, without diversity or roughness, on which we roll along. Prudence would have



IN THE LAND OF THIRST.

Facing p. 104.

The Tanésrouft, the Land of Thirst

advised the suppression of all light, but how could we have traced our route between the sky and the dark soil? Clouds of dust are still afloat in the higher regions of the atmosphere. They hide the stars, imparting an absolute opacity to the shades of the night.

Too tired to talk, we have difficulty in fighting sleep. Our heavy eyelids close of themselves. Our fevered brains can only just distinguish the reality, the great black silence, the absolute immobility which surrounds us, from the nightmare hallucinations which seek to assail them.

Suddenly the man who directs the route of the cars notices, with some consternation, an anomaly in the convoy. Where, just now, the two big white eyes of the *Climbing Caterpillar* were glowing he sees only a red light. What has happened? It is all the more disquieting because the red light, a rear light, is diminishing. No doubt is possible, it is moving off. Can the car driven by the mechanic Rabaud have been silently attacked and separated from us? We imagine Rabaud changing his course under the menace of a rifle muzzle. We must go to help him. All the convoy turns about and we drive our cars at top speed to arrive in time.

At last the fugitive is caught. There is nothing suspicious about him. Then why has he turned about? We hail the driver. No reply. Is the car bewitched? We pass it and call again. Then the voice of Rabaud reaches us, sounding strangely. We call to him to pull up. He does. Now everybody is round his car. What has happened? What is the matter? The good fellow looks at us with surprise. All is explained. Overcome with fatigue,

Across the Sahara by Motor Car

he had gone to sleep at his wheel. The adventure ends in bursts of laughter. Had the *reg* been less smooth, it might not have ended so fortunately. All the same, could not this car, driven by a sleeping man, and turning, of its own account, back to the north, make us very anxious indeed if we were superstitious? The magic attraction of the Hoggar, the fascinating smile of Antinea!

Human endurance has limits which cannot be exceeded with safety. At 9 p.m. there is an end of ours. We shall not go any farther to-night, but in view of a possible attack, and the suspicious trails seen at nightfall, the camp will be formed so that our three machine-guns can sweep on all sides.

Unfortunately that was not the end of our troubles. There are unlucky days when everything goes wrong. In going backwards to take its place in the camp a car falls into a hole and breaks its *jambes tendueuses*. That settles it. In spite of the fatigue which oppresses them, the mechanics must pass the night in doing the repairs!

By the light of flares a gang works while the others rest. Our guide Ahmed ben Jellali watches, rifle in hand.

About 2 a.m. the flares go out. The work is done. We can soon start once more.

A great calm now pervades the camp. Ahmed ben Jellali still watches. He knows that the solitude is often deceptive. One may sleep quietly for weeks, months, and years, and one fine day the surprise comes. Marauders slip stealthily through the night. They may have knifed you before you can give the alarm.

The Tanesrouft, the Land of Thirst

Perhaps the formidable enemies are not far away, the Ouled Jerir or Reguibat of sinister reputation, whose tireless mounts left those revealing tracks on the sand. We must defeat their manœuvres and show them, if they espy us in the shadows, that we are not an easy and defenceless prey.

While the mission sleeps and gathers its forces for to-morrow's stage, which will take it to the Soudanese steppes, Ahmed ben Jellali keeps watch.

December 31st.—We are obliged to wait for the day before we can proceed on our way with safety.

About 8 a.m. we arrive near a small mountain range at the foot of which some tufts of herbage grow. We shoot several gazelles. Shortly afterwards the mission enters a wide valley where we encounter flocks and Tuareg camps. They are Imrads. They are birds of passage, profiting for a few weeks by the meagre vegetation which appears after a rare rainfall every seven or eight years. These Tuareg have put the Tanesrouft between themselves and the Lord Akhamouk, Amenokal of the Hoggar. They thus hope to escape taxation. But the chieftains of the Hoggar do not hesitate to traverse the Land of Terror to visit the servile tribes and confiscate a large portion of their herds.

We enter the first hills of the In Tedaini range. They are rather high mountains, cut by winding valleys usually going south-east.

Our cyclometers register 290 miles from Arrem Tit.

About two o'clock we ought to be near the wells of Tin Zowaten. When shall we arrive? Our impatience is great. It is, in fact, at Tin Zowaten that de Cérés

Across the Sahara by Motor Car

is to meet us. We have a very natural feeling of anxiety to meet this old friend after so many days of isolation in the desolate country we have just traversed.

A crowd of questions assails our minds. Shall we come out at Tin Zowaten? Will de Cérís be there? Will he have traversed without a grave accident those difficult regions of the Soudan and reached the well in the middle of the desert, where we gave him rendez-vous on a certain day, just as if it were a question of an inn along a good French road? Shall we find petrol, food, and water, the indispensable stores for continuing on our way? Tin Zowaten has always appeared to us as the first goal of our quest. Of course, it is not yet Timbuctoo. But it is at any rate the Soudan, and the first success of the mission.

At 3 p.m. a shot rings out, then two, then three. We perceive two merry clean-shaven faces under battered helmets. Hurrah! They are the mechanics of the provisioning expedition from the Niger.

Tin Zowaten at last.

De Cérís is there. He rushes towards us, with Captain Guénard and Adjutant Commère, commanding one of the Chaamba corps, who will guarantee our safety in this district. It is a stirring meeting, on the appointed day, 1,250 miles from Touggourt, our starting-point!

The route will now be easier, and in a few days we shall reach the wonderful Niger.

This afternoon the old champagne of France flows at Tin Zowaten!

De Cérís is a good talker. After the first effusive greetings he tells us of the anxiety with which he had watched for us, his hypnotised gaze towards that

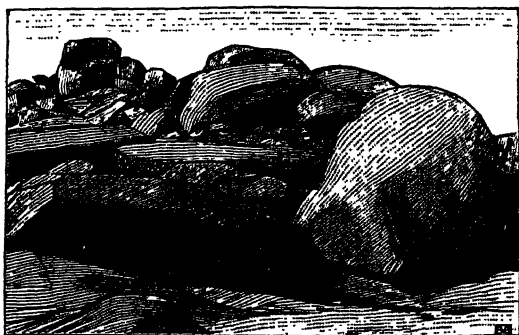
The Tanesrouft, the Land of Thirst

implacable northern horizon, bare and sinister, beyond which his friendship imagined so many ambushes and dangers lying in wait for us. Then he gives us a vivid picture of the Soudan where he has passed six months in work and untiring exertion for the success of our enterprise. There is an inexhaustible supply of anecdotes of Soudanese life. He gives them with a picturesque relief which holds and charms one like those ancient tales of voyages in which navigators like La Pérouse and Cook recount their marvellous adventures.

We decide to start to-morrow at daybreak. The mission must proceed quickly and keep its good timetable. We are tired, of course. *Tant pis*. We shall rest at Timbuctoo.

The cars are overhauled. Half the night is spent in examining everything. But first we taste a good dinner, the only one which deserved the name since In Salah.

Never was a New Year's Day so gay, nor did it see so many people at the wells of Tin Zowaten, the border station between the Tanesrouft and the fertile plains of the Soudan.



CHAPTER V

THROUGH THE STEPPES OF THE SOUDAN TOWARDS THE NIGER AND TIMBUCTOO

The Fairy of the Steppes—A Difficult Passage—The Adrar of the Iforas—First Contact with Black Troops—Tin Toudaten—Suffocating Heat—At the Foot of Kidal—Flossie does not love the Tom-tom—Gazelles and Antelopes—The Cram-cram and his Misdeeds—At the Wells of Tabankor—The Brushwood on Fire—The Niger, the River with a Hundred Names—Bourem—Thirty Hours of Steady Going—Meeting before Timbuctoo—The Reception by the Mysterious City—The first Sahara Mail—Our Mission ended.



January 1st.—Leave Tin Zowaten.

We traversed the Wed of Tin Zowaten, overgrown with large *lethels*, *retems* and thick plants with pale, broad, and well-developed leaves.

At the foot of a rock, half covered by the delicate branches of a tamarisk, we found the small tent of Raishallala, daughter of a noble Targui, recently married to a Sahara N.C.O. On hearing us pass, the young woman came and stood on the threshold of her leather domicile and waved a welcome to us. After the horrors of the Tanesrouft this graceful vision seemed a good omen for the rest of the trip. Was it the Fairy of the Steppes giving us permission to cross her empire? Or was it the smiling embodiment of the New Year?

On the other side of the Wed, we stopped a few moments to talk to Adjutant Commère, whose Chaamba platoon rendered us military honours.

The Wed of Tin Zowaten forms the boundary between Algeria and French West Africa.

At 7.30 we proceeded towards the south, under a sky limpid and blue as usual. In the south-west we perceived the first buttresses of the great mountain range called the Adrar of the Iforas.

The start out from Tin Zowaten was very bad.

Across the Sahara by Motor Car

Our cars were obliged continually to cross large blocks of stone, which necessitated considerable veering and sudden backings such as would require a great deal of coolness and a quick eye in the driver. These gymnastics continued for 15 miles, with occasional dunes covered with verdure instead of rocks.

It was difficult to keep to the route, which was not easy to recognise.

After passing the wells of Tin Aramir the terrain became easier and more uniform. The route passed through wide flat valleys, some of them scarcely discernible depressions : Wed Zara, Wed In Eskaf, and a branch of the Wed Zakak. Vegetation became rarer and finally disappeared, as if we had reached a new Tanesrouft. We had not expected this, and were astonished by this mournful country, consisting of undulating black *reg* with a few equally black hillocks.

The day had been very oppressively hot, but the temperature became fresher as the twilight brought us an inestimable relief.

By nightfall we reached a vast plain in which we saw heights resembling mountains as seen from a distance. These, however, seemed to shrink as we approached them, illustrating once more, by an optical play very frequent in the Sahara, where light ignores the ordinary laws of perspective, the fable of the "Sticks afloat on the wave."

We passed over a small gap in these low hills half covered with sand. The landscape was grandiose and severe. Behind us was the wide steppe, dotted with a few hills, and on the east were downs. We were told that this region is overrun with giraffes, but we did not meet any.

Through the Steppes of the Soudan

We pushed on in the night for what appeared to us a very long time, as we wanted absolutely to reach the wells of Tin Toudaten. The terrain was often very bad, stony and unequal.

The miles stretched interminably. Everybody was tired out. We did not stop for dinner, as we thought we should do better at Tin Toudaten.

Our drivers relieved each other as best they could. As soon as one of them left the wheel to take a rest, he fell into a deep sleep at once. The violent shaking of the car, due to the bad ground, did not awaken the sleepers, who were strapped to their seats to prevent them falling off.

About 11 p.m. we saw a fire, and concluded we must be near Tin Toudaten. Soon the silhouette of an employee showed itself in the night. We had struck the camp of Lieutenant Rousseau's platoon. It was our first contact with black troops, those troops whom we cannot praise too highly for the faithful guard they kept over French West Africa during the war and the valour with which they shed their blood in our trenches in Artois and the Champagne.

We sat down by a fire which crackled joyfully. While we chatted with Lieutenant Rousseau and his sergeant, two splendid Senegalese cooked pieces of mutton on a brasier for our dinner, using their ramrods as spits. The fire lighted up their masculine faces whose marked features faded away into the night.

A few yards away the shadows of the Lieutenant's two white meharas were discernible in their sheds. Sometimes one of them would gaze at us, stretch its reptilian neck, lay its head on the ground, and close its eyes for a few minutes. That is how these animals rest and sleep, with their flat skulls, their white legs,

Across the Sahara by Motor Car

and their powerful muscles, designed to take them ceaselessly across the desert spaces, till they die of fatigue in a few minutes, some fine evening when least expected.

The fires went out. By the light of our torches, two mechanics worked all night to change some rollers. To-morrow we shall drive, while they will sleep profoundly.

Towards 1 a.m. we lay down under our blankets near the fire, while the sinister plaint of a hyena arose in the night, accompanied by the strident barking of the jackals.

January 2nd, 3 a.m.—A very cold night, but we must start. It was difficult to awaken the mechanics, who had had little rest since we started ! During our stops, while we wrote up our memoranda and studied our whereabouts, they had been working at the cars, controlling the lubrication and seeing to those thousand details which are so essential to the success of every great enterprise.

We left Tin Toudaten after partaking of delicious coffee prepared by Lieutenant Rousseau himself.

One cannot exaggerate the devotion and friendliness of our colonial officers or the unaffected and chivalrous manner of receiving those who traverse those immense regions where they, with a few native troops, face the great task of maintaining French domination.

Whether they be old officers, young men fresh from Saint-Cyr, adjutants with many years of service, non-commissioned officers, or privates, they are all animated by the same spirit : to serve their country and to give the best reception to those who come from the home country.

Through the Steppes of the Soudan

About 6 a.m. the sun arose over the sombre Soudanese desert. We know nothing more depressing than those regions traversed before reaching the river-side steppes of the Niger, regions without a horizon, slight undulations crowned with black stones, always the same sinister and monotonous outlook. It is not the Desert of Fear, but the Desert of Infinite Sadness. It extends in desolation and sameness as far as Kidal.

At 10 a.m. the heat was insufferable. A stiff breeze from behind threw the sand into our faces. The hot air from the motor burned our throats and pricked our eyes. One of the drivers fell sick, and had to be given a cordial. One of us took his wheel, and we pushed on.

Under the fierce sun the miles seemed interminable. If the wind does not change, we shall be obliged, in order to reach Timbuctoo, to travel only at night.

At 11 a.m. we sighted the fort of Kidal. Our excitement was great, for it was the first post of the Soudan and we felt we were nearing our goal.

Suddenly a large group of Tuareg of the Adrar of the Iforas met us at a gallop on their meharas, led by Attaher ag Illi, their Amenokal, a desert chief whose deep eyes cast a strange metallic lustre into the shadow of his *litham*.

Preceded by black meharists, we passed between two files of riflemen presenting arms. Thus we entered the fort of Kidal, with the Tuareg, majestic on their tall meharas, massing behind.

Captain Guénard presented the various chiefs to us. He was accompanied by his interpreter, Bella Dam Maïga, a very intelligent son of a liberated slave, with a knowledge of Arabic and French, whose

Across the Sahara by Motor Car

intimate acquaintance with the country was of inestimable value to us.

In the fort, the wives of the riflemen executed a joyous tom-tom. A simple and obviously very ancient manifestation of Soudanese joy, the tom-tom is a dance with a savage rhythm, accompanied by the clapping of hands and various cries constantly modulated on the four notes of the primitive gamut.

The monotonous music and the steps of the dance, in which all the muscles of the body participate, gradually produces in the dancing women a complete intoxication. Thus danced and sang, no doubt, those wild mænads whom the Dionysian rites drove in hordes across the fields of Thessaly and Epirus and whose victim the divine Orpheus is said to have been.

The tom-tom shocked Flossie. Our white mascot barked furiously at the heels of those black coryphées of whose graceless contortions and savage clamour she obviously disapproved. Then, realising the uselessness of her protestations, she retired with dignity under a car and closed her eyes tightly as if to say, "You observe that I take no interest in your follies."

An excellent luncheon was served to the mechanics at the non-commissioned officers' mess. We lunched with Captain Guénard and Lieutenant Rousseau, whom we had the pleasure of bringing along with us, in a small room at the top of the fort.

We were all so tired and had so lost the habit of lunching, even modestly, that the two good meals completely knocked us over.

During our siesta an implacable sun beat down upon the fort and on the surrounding blocks of black above. All was silence. One of us slept, quite worn out. The other gazed through the window at

Through the Steppes of the Soudan

the sinister landscape and the ascending globes of heat. Sometimes he saw fine herds of cattle and goats pass behind the ruins. A naked woman, without even the lightest attire, looking like a splendid bronze statue, strode along the walls of the fort and went out into the plain under the broiling sun.

In the evening, while the sun gradually sank, life was born again. As it disappeared, reddening the sky and the blocks of black stone, the joyous tom-toms and savage dances recommenced.

Candles and petrol had run short at Kidal for some time. But for the dinner, the mechanics, always resourceful, had installed a wonderful little electric lighting system with the help of the accumulators of two of the cars.

After dinner, on the *mirador* where we lay, we chatted for a long time with Captain Guénard. He gave us interesting details on that region of the Adrar of the Iforas which he has traversed in every direction, and which he loves. The yield of taxes is much better, and security reigns more and more. He also spoke of the Amenokal Attaher, with whom he entertains very friendly relations, and of Abideen, our old enemy, who had three sons killed in fighting against us. Abideen has fled into the Wed Dra, in the south of Morocco, where he excites the hatred of foreigners in the wild population of the Reguibats, whose *rezzou*, crossing the dunes of Eguibi and the Jouv desert, go to pillage our friendly tribes as far as Gao on the Niger.

January 3rd.—We left Kidal at 8 a.m. The sun was already hot. If the following wind persists, we intend to halt about 10 a.m.

Across the Sahara by Motor Car

The first twenty miles from Kidal were very heavy. The sand was very soft, and we had to use the second speed continually. The cars groaned and laboured, but their caterpillars bit well even into that bad ground, raising a great cloud of buff-coloured dust.

We shot at several antelopes in the course of the morning, and killed one.

The wind changed slightly. It came three-quarters from behind, so that we could push on all day, though the heat was very trying.

As night fell we entered the grassy steppes of the Soudan. Some gazelles, blinded by the light of our headlamps, allowed themselves to be shot from quite near.

At 7 p.m. we saw a fire on the horizon. We thought it was a few hundred yards off, when it was really 10 miles. Was it a friendly tribe, a marauding *rezzi*, or the *carré*¹ of Tabankor? We did not quite know where we were, and continued after making all preparations for a hostile encounter. The fire was still in front. Then it grew bigger. Our headlights finally illuminated a group of black meharists commanded by a French sergeant, who presented arms.

We were at the wells of Tabankor, guarded by Sergeant Veillotte and his faithful mounted rifles.

Sergeant Veillotte is an excellent cook, and he made us a capital dinner. Henceforth we shall eat, drink, and live as usual. Until our return journey our rough Sahara life is finished. We have entered the hunters' plains of the Soudan, and we shall soon reach the fruitful Niger.

Compared with the arid countries we have passed through, the Soudan would appear to us as a veritable

¹ A post consisting of some tents surrounded by a shallow trench.

Through the Steppes of the Soudan

earthly paradise if nature had not invented the "cram-cram." The cram-cram is a simple thorn-bush, but this thorn-bush alone amounts to all the seven plagues of Egypt. We find it everywhere. It is the despot of the Soudanese steppe. It gets into our clothes, into the soles of our boots, the cushions of our cars, and into our hair. It cunningly bites our flesh, penetrating through gloves and leggings into hands and legs. It clings to hairy coats and gets under the paws of poor Flossie, who dare no longer leave her refuge under the awning. All explorers who tried to traverse the terrible Australian "scrub" have left horrifying descriptions of the misdeeds of that devilish thorn which they call the "porcupine plant." Our personal experience leads us to believe that the Soudan need not envy the Australian continent in this respect. The cram-cram is certainly, if not the brother, at least the first-cousin of the famous porcupine plant of evil repute which is said to have been one of the principal causes of the death of Leichhardt and his companions.

As we sat round the fire in the evening, the Sergeant told us stories of the bush. They were warlike stories, mostly lived by the narrator himself. One of the latest and most fortunate exploits of our host and his troop was a dramatic encounter with a strong *rezzi* in December 1921. The fight terminated in a fine success : 27 captives set free and a booty of 42 asses, 141 camels, and 580 sheep.

The *rezzi* encountered by Sergeant Veillotte was led by the three sons of the famous Abideen, who had intended to attack the azalaï, a great salt caravan which comes down every year about this time from Taoudenit for Timbuctoo.

Across the Sahara by Motor Car

Told by the brushwood fire, which crackled and sent its perfumed smoke up to the deep and star-strewn sky, where the Southern Cross glittered on the horizon with all its four golden points, this tale of African life had an epic significance.

But the hour advanced and fatigue invited us to rest.

It is not under the blue Sahara sky, nor the light camping tent, nor the camel-hair tent of the Chaamba, nor yet the reed hut of the Hoggar, but under the *bourgou* shelter of fragrant grasses, that we shall sleep our first sleep in the plains of the Soudan.

January 4th.—Start at dawn. About 12 miles from Tabankor the head of the convoy was obliged to halt, as the two last cars were not following. We saw them distinctly with our glasses at the edge of a great grassy plain. Wishing to know what was the matter, we sent up a flare. Some minutes afterwards, to our great surprise, a flame arose where it had fallen. It had set fire to the dried vegetation.

Two of our mechanics rushed to the growing fire to extinguish it, but already the first flame had given way to a great red patch which crackled and roared. Our men had to retire helter-skelter to the cars. The fire spread in all directions, and we had to fly ourselves. It gained upon us, and we had to make full speed. Soon the whole steppe was on fire. The lagging cars could only rejoin us by making a long detour by the west.

The spectacle had a certain grandeur. It reminded us of some tales of Fenimore Cooper and Mayne Reid which had excited our youthful enthusiasm.

A purple line ran along the ground under a great plume of crimson flame. Clouds of black smoke rose into the sky. In front of the chief focus, which



THE OUTPOST OF THE SOUDAN.

Facing p. 122.

Through the Steppes of the Soudan

seemed in constant acceleration, a crackling veil of sparks and tongues of flame seemed to leap forward to start new fires here and there.

All the beasts of the bush were scared out of their hiding-places. We could not have believed they were so populous. Gazelles, antelopes, and boars rushed along, mixed up with their hereditary enemies, jackals, lynxes, and hyenas. The latter seemed to have forgotten their bloodlust, and only to think of flight. It was the truce in face of the common danger, the *union sacré* of the whole animal world. Thus, no doubt, runs the law of the jungle from time immemorial. The flying beasts ran among the cars without even noticing them. This common exodus lasted for about an hour. But the wind then changed, taking the fire in another direction. Then the animals disappeared as if by magic. They found new lairs and hiding-places.

The bush was deserted once more. We pushed on southward, but saw for a long time the reflection of the flames on the screen of the sky a long way behind. Great vultures came planing over our cars. These squat monsters, with their gasping and tumultuous breathing, interested them, but did not frighten them. They approached so boldly that we had ample time to shoot them, and we killed several.

The well of Taberichat is surrounded by numerous herds owned by Tuareg, Kountas and Berabishes.

After the well of In Tassit we crossed a small wed covered with fleshy plants and doum palms. It was very hot, and the sun beat upon the plain with a blinding glare.

Suddenly we saw in front of us, towards the south-east, an immense liquid expanse which seemed to

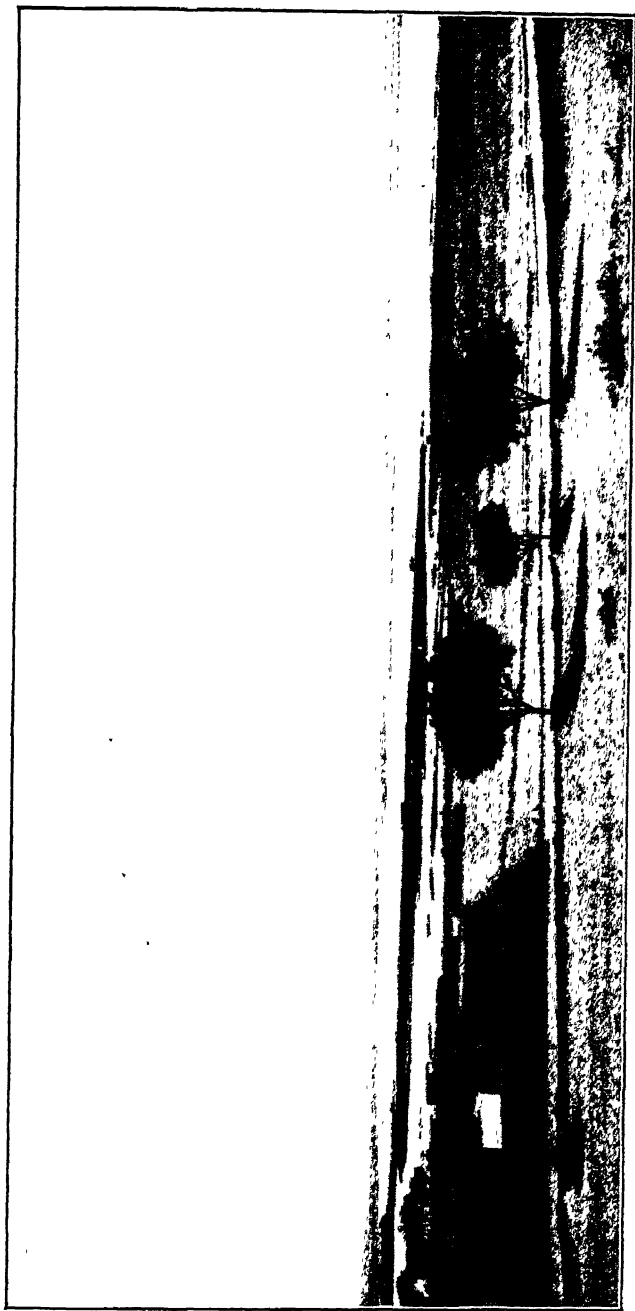
Across the Sahara by Motor Car

flow slowly along through large thorny shrubs. Could it be the Niger? No, for as we approached it the vision receded. It was but a mirage.

The Niger was much farther on, down in that endless plain which glowed and flamed under the glaring rays of the implacable Soudanese sun. We were to reach it that night, on arriving under the walls of the fort of Bourem.

What he sent us first of all, as if to bid us a welcome before showing himself, that King of the black lands enveloped in his sumptuous cloth of gold, was his benediction, his odour, an odour of fertility and life, his powerful and vivifying breath, a scent of water, infinitely grateful, infinitely sweet to our nostrils inured for so many days to the burning dust and sand. The air was filled with freshness, and a sort of pale mist floated like a scarf over the plain, clad in vegetation which was surely higher, thicker, and greener than before. Our lungs dilated voluptuously, penetrated by the joy of an invisible but tutelary presence.

All at once we perceived the magician who had created it. The vision was unforgettable. Beyond the fort of Bourem, which stood out black against the magnificent flowing and moving screen, sparkled the Niger, set in gold and jewellery by the moonlight. At that point it is so wide that one can hardly see the opposite shore. The Tuareg call it *Eguerriou*, and the Arabs *El Bahr* (the sea). Yes, it is a sea whose surface sparkles and palpitates under our dazzled eyes. Its dark-skinned children call the Niger *Dialiba* (the singer). No name is more appropriate. It is the name which came to our mind that night as we listened to the deep and mighty chorus arising from the banks where the river caressingly bends the tall flexible reeds.



FIRST GLIMPSE OF THE NIGER.

Through the Steppes of the Soudan

January 5th.—We shall pass all this day at Bourem to examine and lubricate our cars before starting on the last stage, which we wish to make without a stop. We started at nightfall and found it good going. We shot several jackals who stopped at our passage, hypnotised by our headlights.

January 6th.—The mission passed by Bamba shortly after daybreak. About 11 a.m. we were near Rhergo, and passed a large group of river-side Tuareg mounted on their small horses.

The nomads of the Niger are veiled like those of the Hoggar and the Adrar of the Iforas, but have none of their imposing carriage.

These people are remarkably supple. One of them will drop his lance or buckler on the ground, and will pick it up by simply stooping from the neck of his horse. When they halt, they take up the most extraordinary positions to talk to each other. Sometimes they cross their legs over the pommel of the saddle. Their stirrups are very small. They cannot put their feet in them, but simply hook the big toe in.

At nightfall we shot some gazelles and antelopes.

The night closed in. The sun's last rays gilded the bush, whence innumerable birds constantly arose at our passage. Miles succeeded miles. The stage was long, but the going was good. The night was warm, and we had no need of our overcoats, as on previous nights. We were all dropping with sleep, having travelled over twenty-four hours without sleep and almost without eating, but an ardent desire to reach Timbuctoo sustained our courage. The track traversed a thick bush studded with large thorn-trees.

Across the Sahara by Motor Car

January 7th.—About 2 a.m. our guide told us that we were not more than six miles from our goal, the city of mystery. We decided to pitch our camp, so as to make our entrance in the daytime. Our tents were quickly put up and we lay down on the Soudanese ground, from which arose a sweet scent of dried grasses.

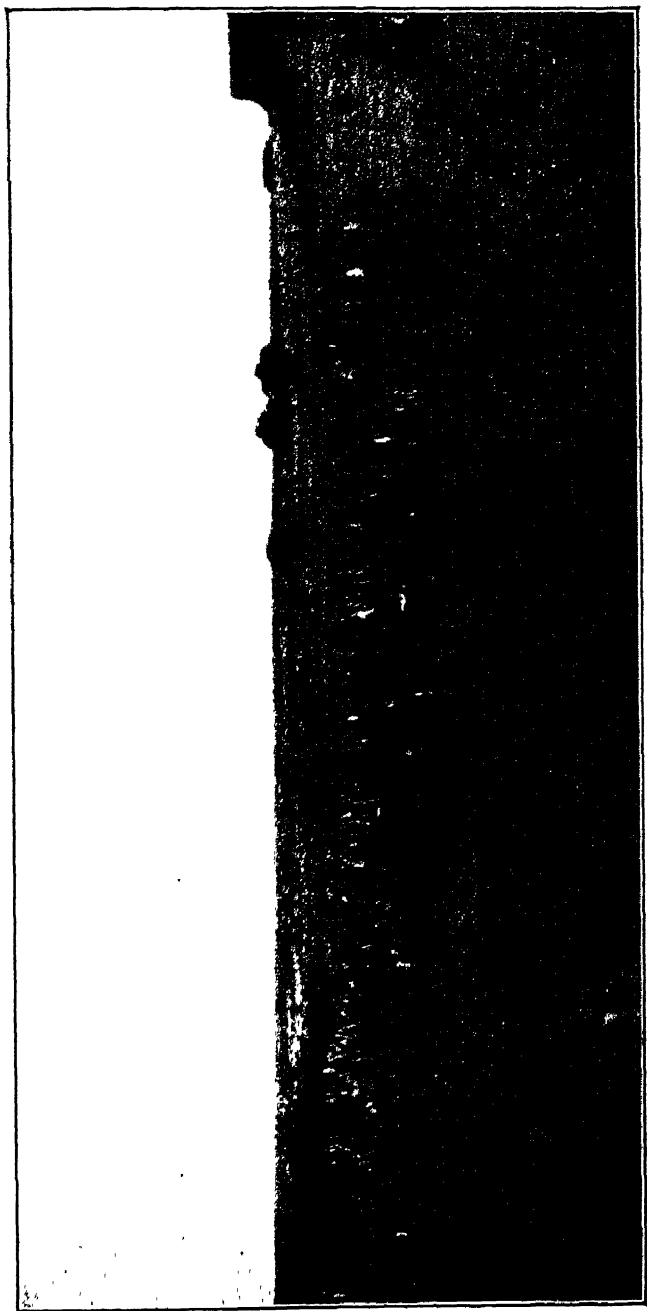
We left at 8.30 a.m.

The leading car had hardly gone half a mile when the silhouette of a Targui was sighted on the top of a hillock. On the other side of this hillock several horsemen had dismounted. They were Colonel Mangeot, commanding the region of Timbuctoo, and Commandant Fauché, the district commander, surrounded with their officers and some Europeans.

The meeting took place in the middle of the bush, under a cloudless sky white with sunlight, with two vultures circling majestically overhead.

The simple and unrehearsed scenes added a certain grandeur to the moving event. It was one of those minutes which cannot be forgotten. We take pride in the fact that it makes a new departure in the penetration of Africa. For the first time, motor cars have crossed the Sahara. For the first time, mechanism has not only conquered the distance, but all the obstacles accumulated in the most desolate and anti-human regions of the globe. Our eyes strayed towards our tricoloured pennants, and our overflowing hearts rendered homage to them for the cordiality with which we were received in the Soudanese bush, verdant under the humid and vivifying breath of the Niger.

The cars were surrounded by Tuareg, prancing on their little horses, and by Berabishes and Koundas, whose camels were inclined to shy at the unaccustomed noise of the motors.



UNDER THE WALLS OF TIMBUCTOO.

Through the Steppes of the Soudan

We arrived under the walls of the city, and an immense crowd was there to greet us. All the races of the Bend of the Niger were mixed together to participate in our welcome.

The blacks gave forth cries of joy indiscriminately in twenty different languages. Their enthusiasm had an unmistakable air of spontaneity. They were certainly sincere. For the first time these poor people saw arriving from the north a force of good intent. Up to that time our soldiers came to protect them, our officials, colonists and missionaries to educate them, our traders to enrich them,—all from the west, by way of Senegal. Of the north they had but a memory of fear, of devastating invasions. Their one terror was to see emerging from the steppes, if not the sinister armies of Morocco, at least those starveling hordes of the Sahara who had always pillaged them.

Our cars emerging from that accursed and threatening horizon meant to them that there, also, France keeps watch. It is the end of a nightmare, the definite assurance of a fruitful peace, henceforth without eclipse.

The descendants of the brigands for whom Timbuctoo was but yesterday an easy and continually exploited prey, the Tuareg, the Berabishes, the Moors, and the Kountas had probably not the same reason for acclaiming us. Yet their cries mingled with those of their ancient victims, because they appreciate prowess. It would be unlikely that the success of our risky enterprise should not move the hearts of these bravos to some warm approbation. Knowing the desert as they do, they all knew what we had had to face, and could appraise our effort at its true value.

In a broiling sun we made for the Place Joffre and

Across the Sahara by Motor Car

stopped facing the two palaces, that of the Region and that of the Governor. It was a solemn occasion. One of us presented to the Colonel and all the French authorities, in the presence of an attentive crowd, the

Région de Tombouctou

PROCES - VERBAL

doctes soussignés

PICHEU Receveur des postes à Tombouctou

CECCALDI Lieutenant d'Infanterie Coloniale au 3^{em} de Tirailleurs Sénégalais N°2

PEPONTAN Lieutenant d'Infanterie Coloniale adjoint au Colonel commandant la Région de Tombouctou



certifions avoir reçu à la poste de Tombouctou un sac de courrier provenant de Touggourt le 7 Janvier 1923 à 10 heures 30 remis par M.M. BAZERT et A. DUVINSGREUIL, chefs de la mission transaharienne (premier voyage automobile Touggourt-Tombouctou)

En foi de quoi nous avons dressé le présent procès-verbal

Tombouctou le 7 Janvier 1923

Receveur des postes PICHEU Lieut. CECCALDI Lieut. PEPONTAN


[Signature] *[Signature]* *[Signature]*

Vu:

Tombouctou le 7 Janvier 1923

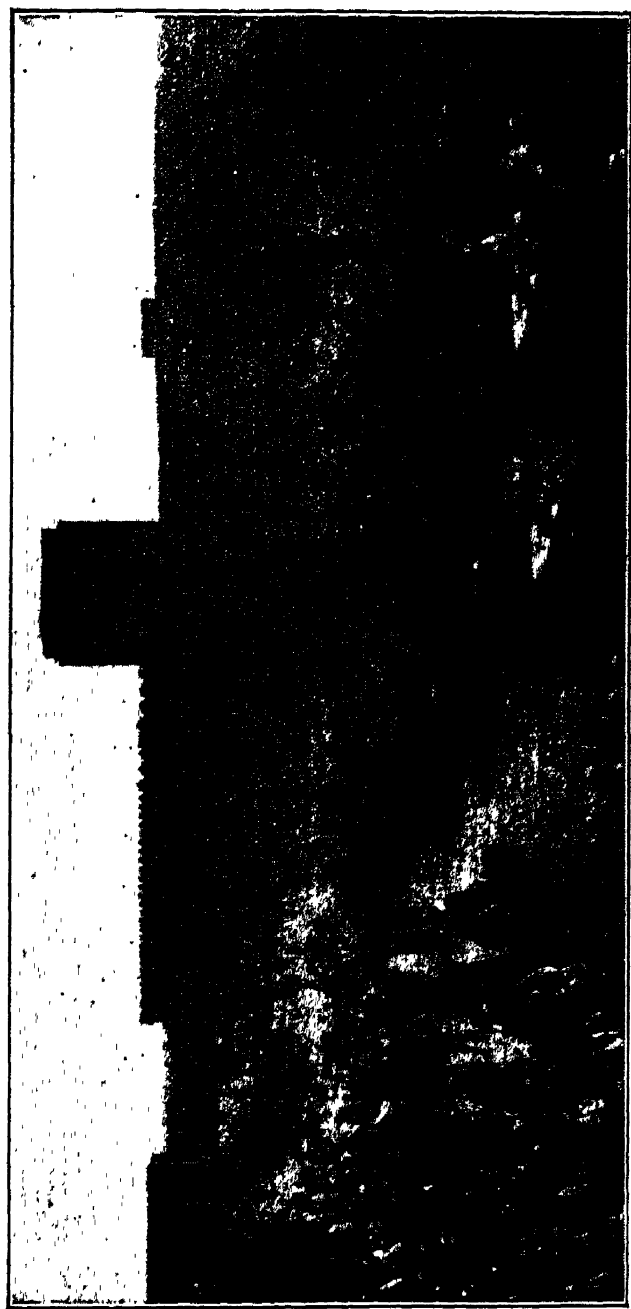
Le Colonel MANGEOT commandant la Région

[Signature] 

first mail from the mother-country sent across the Sahara. He said :

" In crossing those 2,200 miles of desert immensity we have had the joy and pride of bringing about the junction between Algeria and opulent French West Africa. Though but modest precursors, we hope to

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OUR ARRIVAL AT TIMBUCTOO.

Facing p. 128.

Through the Steppes of the Soudan

see a revival of the old caravan routes, those trade routes which even in the times of Charlemagne linked Algeria and the Tunisian *djerid* with the Niger.

"The Ministers of War and of the Colonies ; M. Steeg, Governor-General of Algeria ; M. Merlin, Governor-General of French West Africa, have, by the complete co-operation they have always accorded to us, shown the value they attached to our success.

"The Under-Secretary of State for Posts and Telegraphs, wishing to give official sanction to this first rapid crossing of the Sahara by motor car, has decided to make it coincide with the inauguration of a postal service by the route which we have followed.

"I have the honour, Colonel Mangeot, to place in your hands the first trans-Saharan automobile mail, which in twenty days and fifteen stages we have transported from Touggourt to Timbuctoo."

The words were listened to in religious silence, and were followed by thunderous applause.

The heat was stifling, on the 7th of January ! The crowd swarmed about, a motley crowd of all the races of the Soudan, from the veiled Tuareg, the Berabishes and the Moors with pointed profiles and long fuzzy hair to the negroes with enormous muscles, whose naked flesh exhaled that curious odour of stags.

It was our first contact with a black crowd. It was more noisy and less respectful than an Arab crowd. The guards were obliged to beat them back to make room for us.

At noon our cars were put into small reed garages in a corner of the Place Joffre. There, guarded by some riflemen, they will rest during our stay here from their long rough voyage.

We entered with pleasure the fresh and shady

Across the Sahara by Motor Car

palace of the Region, where we found nearly all the comfort of France, and composed the joyous telegram announcing our arrival :

TIMBUCTOO,

January 8, 1923.

We camped on January 6th, in the evening, before Timbuctoo.

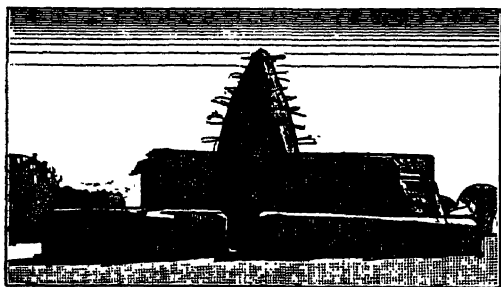
On January 7th, on a brilliant morning, we made our entry into the great Soudanese city complete in number, with our five cars and all our material, as we had left Touggourt. Colonel Mangeot, commanding the Timbuctoo Region, accompanied by Commandant Fauché, by administrators, officers and Europeans, and escorted by black horsemen and Tuareg, had done us the honour of going to meet us to acknowledge the success of our efforts and the high aim of our mission in the name of the Governor.

Preceded by the Colonel, galloping at the head of his staff, our cars, surrounded by numerous Tuareg horsemen, entered into Timbuctoo amidst the delirious joy of the inhabitants.

The official delivery of the first automobile trans-Saharan mail, transported by the "Citroën Raid" from Touggourt to Timbuctoo in twenty days, fifteen of which were stages, was solemnly made in front of the Governor's palace as we alighted from our cars.

A practical and rapid link has thus been established through the French Sahara between the opulence of Algeria and the wealth of French West Africa. Our mission is accomplished.

HAARDT AUDOIN-DUBREUIL.





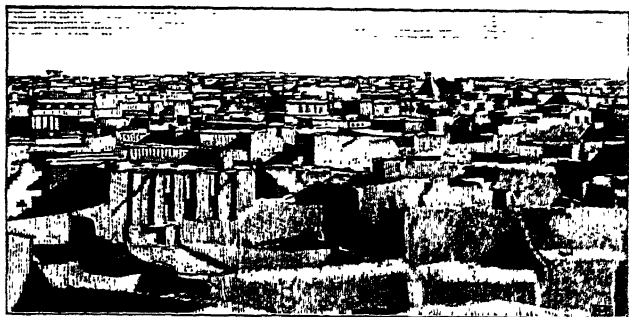
THE FIRST TRANS-SAHARA MAIL.

Facing p. 130.

CHAPTER VI

TIMBUCTOO

A little History—Pax Gallica—A little Corner of France—Visit to the Toubib—The Professional School—The Shops—The Mosques—Evening in the Town—The Bengalees—The Dioulas—Homage to the Niger—Life on the River Bank—Soudan Cotton—The Aube Monument—Flossie's Successes—The Beauty of the Negresses—Feminine Elegance in Timbuctoo—Gazelle Hunting—Preparing our Return through the Desert—The Azaläi, the Salt Caravan—Two Powerful Tuareg Chiefs—A Memento of Sheboun—The Stories of Kaïd Ahmed Baba—A Pilgrimage to the House of René Caillé—A Fine Lesson in Energy—Gallivanting through Timbuctoo—Fulahs, Tuareg, Bera-bishes and other Great Ones—Tartarin of Timbuctoo—Departure of the Region Commandant—Our Boys—Preparing for a Trip on the Niger.



January 7th.—After sending our telegram of victory in the morning, we devoted our first day in Timbuctoo to paying visits. It was an agreeable duty. The reception everywhere was so amiable that we had the impression, not of being strangers in the black capital of the Soudan, but of finding old friends there.

We were the guests of Colonel Mangeot, whose hospitality was most lavish and charming.

The Colonel is a distinguished Arabian scholar. His studies in the history of Timbuctoo have taken him back to the origin of the great black metropolis founded in the twelfth century on the site of a camp where the Tuareg Magsharen left every year, before wandering into the region of Arowan, a part of their provisions of wealth, under the care of an old slave woman named Timbuctoo, which signifies "the woman with the large navel."

The town developed owing to its situation on the junction of the caravan routes from Tripoli, Touat, and even Egypt, to Birou.

In 1325 it was rich enough to tempt Kankan Moussa, king of the Mali, to capture it and live there till he died in 1332.

It was then sacked and burnt by Masségué, the emperor of Mossi. In 1434 the Tuareg took it, and

Across the Sahara by Motor Car

kept it till 1468, when it was incorporated in the Songhaï empire.

Under the reign of the greatest prince of the black dynasty, Askia El Hadj Mohamed, Timbuctoo knew long years of prosperity. The emperor encouraged literature and science. Timbuctoo was then an important centre of civilisation. It was the same till the death of the Askia Dowd, which took place on August 20, 1582.

Then the Songhaï empire decayed, and Timbuctoo soon fell under Moroccan domination. Mahmood, Pasha of Marrakesh, captured it for Sultan Mulai Ahmed el Dehebib on August 17, 1591. It remained Moroccan till 1770, in spite of numerous attacks by the Tuareg, who often succeeded in pillaging it, and incessant internal troubles which greatly interfered with its prosperity.

The Tuareg made themselves masters of it in 1792, and then the Fulahs in 1827.

Sheikhou Hamadou, emperor of the Fulahs, endeavoured to raise it from its ruins and to bring it back to some of its former glory. It was at that time that the French explorer reached the mysterious town, where he lived from April 20 to May 4, 1828.

The Fulah domination was followed by the anarchic period of the Toucouleurs, and then by the sanguinary rivalry of the Koundas and the Iguadaren. This was finally stopped by the French conquest (December 15, 1893).

Colonel Mangeot was also entertaining M. Delbos, administrator of the Goudhan district. We blessed the good fortune which had allowed us to meet this amiable official. M. Delbos has not only a complete



EGYPTIAN ARCHITECTURE AT TIMBUCTOO.

Facing p. 134.

knowledge of his region, but all African problems are familiar to him. We were often agreeably struck, in the course of our conversation, with the justice and profundity of his views. His faith in the future of French West Africa is ardent and inspiring.

How could one not believe in the future of a colony when one loves it as M. Delbos loves "Black France"? One should hear him speak of the Niger and the races which people the banks of our great African river, that moving roadway whose liquid mass, enormous and fruitful, extends from the mountains of Fouta Djallon to the Gulf of Guinea, over a course of 2,500 miles, enclosing in its immense bend a territory three or four times the size of the mother-country, and draining with the waters of its tributaries countries capable of agricultural and commercial production concerning which no precise data are as yet available, but which justifies the highest hopes.

From our first meeting, we took a great pleasure in hearing M. Delbos talking of the history of the Niger. He reminded us of the time, not so long ago, but which seems long to us now, when England, possessing the delta of the river, claimed the control of its entire course. Our Soudan then resembled a vast house without doors or windows; our suzerainty was a matter of dispute. It required the voyages of Binger and Monteil, of Commandant Hourst (1895-1896) and of Toutée (1897) to establish its legitimacy. The Franco-British Convention of June 14, 1898, fixed the common limit of the British and French zones of influence and also granted us two enclaves on the lower course of the river, one at Boussa and the other at its mouth. Thenceforth the

Across the Sahara by Motor Car

French Soudan had its free outlet to the Gulf of Guinea. It was no longer bottled up. The subsequent construction of the railways from Kayes to Bamako and from Konakry to Kouroussa further improved its accessibility.

What was still wanting was a route northward to Algeria. Does not the track of our caterpillars across the immense Sahara mark out this necessary route by which the homogeneity of the African block may pass to-morrow from the domain of Utopian dreams to the domain of reality?

Our first conversation with M. Delbos dwelt on that grandiose vision, a vision so comforting that it sufficed to make us forget all our fatigues.

We went to the residence of Battalion Commander Fauché, commandant of Timbuctoo territory.

Commandant Fauché is the successor of Commandant Bettembourg, with whom one of us accomplished in 1919 the Saoura-Tidikelt mission.

That brilliant colonial officer has already had a long and active career in French West Africa. He has always endeavoured to establish a close link between Saharians and colonials, and set an example of African solidarity in the largest and most fruitful manner by receiving his comrades of the Algerian forces with great cordiality under all circumstances.

Madame Fauché did not fear to accompany her husband into the heart of Africa. That valiant Frenchwoman received us gracefully in a home where the resources of native art—carpets, covers of dyed wool, arms and embroidered leather cushions of Tuareg manufacture, and all sorts of trinkets—mingled an agreeable exotic note with European

furniture. The arrangement of all these things revealed a perfect taste. For us nomads of the Tanesrouft and the steppes, fresh from our rough stages through a barbarous country, it was an inexpressible pleasure to find here so much comfort and refinement. We particularly appreciated, with a sort of tender gracefulness, the charm of that French urbanity which is, wherever one travels through this great world, the indelible mark of the fatherland borne by those who assume the task of representing it and making it loved under strange skies.

In olden times, those who landed in the West Indian Isles found white houses in shade and freshness with great verandas, charming homes where the "planters" made a point of forgetting nothing of the social traditions of France.

The Soudanese salon of Madame Fauché reminded us of those exquisite Creole houses where the score of a Lulli ballet would occupy the music-rest of the spinet, and where, while eating guavas and shaddocks, the inhabitants discussed the paintings of Madame Vigée Lebrun and the latest tragedy of M. de Voltaire.

There were other visits, too. We met the doctor, Major Baus, at his native infirmary. The kindly *toubib* did the honours of the establishment, where he treats, with untiring devotion, all the afflicted among the hybrid and mixed population which makes Timbuctoo a veritable ethnological museum. The activity of the physician is one of the most useful and effective in the colonies. To make France beloved by kindness, by relieving all miseries, defects and decrepitudes, that is the noble task shouldered by these valiant men, true lay missionaries, whose red

Across the Sahara by Motor Car

velvet collar, embroidered with a gold caduceus, is known and venerated by all the natives, whatever the colour of their skin.

We were present at a consultation. It was full of interest, and would serve as a reply to those who, unconsciously or maliciously, blacken our fine colonial work.

Smilingly the mothers submit the fat arms of their black babies to the vaccinating lancet. The sick submit to his examination while raising eyes full of gratitude and hope to the face of the *toubib*. He has the patience and gentleness of an apostle, and also his disinterestedness. He examines, listens, bandages, nurses and advises, his only salary being the benedictions of his black clients.

Leaving the infirmary, one goes to the school. The school of Timbuctoo is under the direction of a Soudanese of long standing, M. Dupuis, better known under the name of Yakouba, which means "the man of learning."

M. Dupuis, a substantial figure with the face of a patriarch, teaches his pupils the rudiments of the French language, and imparts to them quite a lot of things such as form the programme of a primary school. But the most interesting part of his teaching is what one might call the professional side. Workshops are attached to the school, where the young Timbuctooans learn to use the saw, the file, and the plane. Thus they are equipped for life and can earn a living for themselves and their families in honourable avocations which are more remunerative than the old local industries. The latter are, however, not neglected. Efforts are made to improve and restart

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those of weaving and pottery, which formerly were most prosperous. The same applies to leather embroidery and iron-foundry.

Yacouba's school is frequented by a large number of pupils. It is in the fashion. The blacks, who have an unexpectedly positive and practical outlook on life, seem even to prefer it to the old Koutab^{*} where ancient *tolbas*, armed with canes, perpetually intone to their squatting disciples, with a monotonous swinging of the whole of the upper body, the surats of the Koran.

Before going home we visited the European merchants. Six offices, all French, share the clientèle of Timbuctoo. Goods of all sorts are bought and sold there. They are much frequented. One of them served us as a bank with the most untiring amiability during our whole stay.

It was late when we re-entered our quarters. The night fell with the rapid twilight of the subtropical regions, but from the terraces we could still watch the strange city massed at our feet.

All Timbuctoo is built of *toḥ*, or bricks of crude earth dried in the sun. Under the glaring daylight it appears dull and grey, but the twilight clothes it in a sort of golden mist streaked with gleams of coral or mother-of-pearl. The architecture of the houses recalls that of ancient Egypt. The impression is strengthened by the shape of the minarets, squat pylons, crenelated and decorated with dead branches.

The interpreters, Abdullah So and Balobo Maïga, attended us. They named and showed to us the principal mosques. In the north was the largest and

^{*} Koran school.

Across the Sahara by Motor Car

most sumptuous : Djameh Sankoreh. Nearer to us the oldest, that of Sidi Yaya, very primitive in appearance. It was built in 1400 by the Marabout El Moakar Amalla, who, when it was finished, shut it up and took away the key, predicting the mysterious arrival of the imam of the new temple. It was the Shereef Sidi Yaya, who came from the north, mounted on a white camel, forty years later, after traversing alone the whole of the desert. On arriving at Timbuctoo the traveller opened the sanctuary and invited the whole population to come and pray there. Sidi Yaya lived, it is said, in the odour of sanctity, and legend attributes to him a great number of miracles.

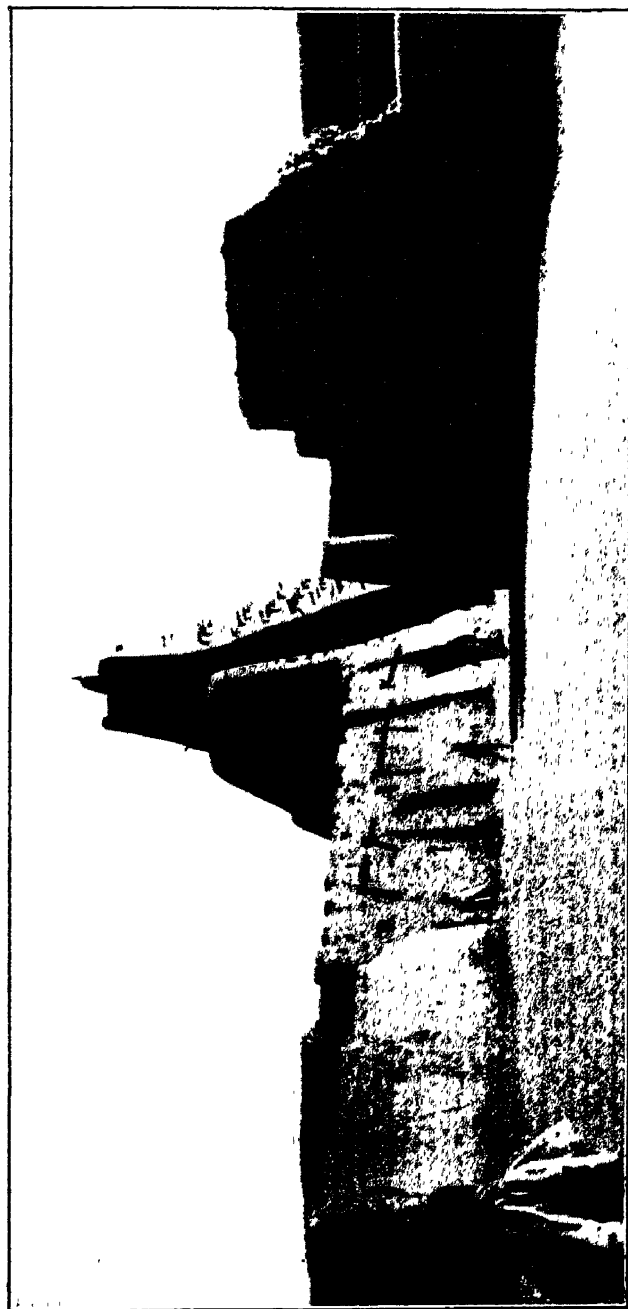
The mosque of Djidji Riber, which stood out as a black silhouette against the red sunset, is even more ancient than that of Sidi Yaya. It is said to have been built in 1326, thanks to the liberality of King Kankan Moussa, by a Spanish Moor called Es Saheli. In the centre of the city, in one of the most populous quarters, not far from the Place Badjindeh and near the *Medersa*,¹ there is another minaret, that of Sidi Jahia.

The interpreters also showed us the *Koubas*, where the more celebrated personages of Timbuctoo sleep in their tombs, more or less decorated with draperies and funeral standards.

Here is the tomb of Sidi Mahmud, that of Sidi Hamid ben Homar, that of Sidi Boolkassoon, and that of Mahaman Tomba-Tomba. These last monuments are outside the town, near the Kabara canal.

Timbuctoo was formerly much larger than it is now. The wall of Kankan Moussa rested on the

¹ A Moslem high-school.



THE DJAMEH SANKORFE MOSQUE, TIMBUKTOO.

Niger ; in the sixteenth and seventeenth centuries it included a branch of the river. At present the Niger is 9 miles south of the town, to which it is joined by a canal.

The two interpreters told us about this historic past. Balobo Maïga did it with emphasis, as if to make us admire his native place. It is because this great negro, with the fine regular features, is an authentic descendant of the ancient Songhaï kings.

While he was speaking, the night was falling. We saw, beyond the city, the camp-fires of the Tuareg, Berabishes and Fulahs in the thick bush which covers the plain. Do these incorrigible pillagers watch for a failure on the part of the defenders of the Soudanese metropolis, the object of their insatiable desire, on which their progenitors wreaked so many plunderings and burnings ? But no, under the ægis of France Timbuctoo may sleep in peace. Tuareg, Berabishes and Fulahs have become peaceable shepherds. One may listen from afar to the lowing of their great russet cattle and the bleating of their innumerable goats.

The stars shone out, training in the silky sky constellations unfamiliar to us. The river was invisible, but it exhaled a fresh breeze which passed over the city and made us shiver in our suits of white linen. This is the pleasant season of Timbuctoo, like a fine September evening in the West of France. What must be the atmosphere of the terraces on a broiling summer day ? Just then life was agreeable, and it was pleasant to smell the scent of the bush where camp-fires shone in all directions.

The terraces filled up with a jovial crowd. The ladies of Timbuctoo are in the habit of going up there

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after nightfall and talk to each other with vivid gestures whose breadth is not without harmony. With their voices and laughter and song we hear, from the streets, squares and lanes, the dull beating of drums, some flutes or the strident notes of the Tuareg fiddle or negro *guinebri*, a primitive mandoline with metal strings wired on a tortoise-shell. The *toḥ* walls and the powdery streets muffle the nocturnal sounds a little. This evening Timbuctoo is happy, and seems to avow it, murmuring in its dreams.

January 8th.—We shall stay at home—a pleasure we have not tasted for so long ! The palace of the Region is, indeed, an agreeable place in which to enjoy the luxury of a day's laziness.

While we wrote our correspondence, comfortably stretched on the easy chairs and divans with Dory and Goudhan covers, graceful little bengalees entered and hopped about the room. Some of them were bold enough to sit on the very paper on which we wrote. With their bright little eyes, resembling two grains of coral, they followed with curiosity our fountain pens, and seemed to express an undeniable interest as well as a great surprise. Perhaps they are astonished not to see the beautiful Arabic letters which their species has been so long accustomed to see encased in elegant curves on the parchments under the screech of the *kalams*.^{*} It is, no doubt, in the company of Moslem scribes, grave *tolbas* and wise imams, whom the Koran taught to be gentle and kind to Allah's feeble creatures, that the bengalees of Timbuctoo learned not to be afraid of men.

^{*} Reed pens.

If they knew the continual disquiet of the birds of Europe, they would, no doubt, be filled with compassion for their hunted brethren. But how long will it last, this confidence of the winged tribe which displays its careless grace in the houses of the Soudanese capital?

Through the great window-frames opening on the veranda there enters the brutal light of a white-hot sky, where the sun begins to envelop itself in a feverish mist which half veils its rays without reducing their fierceness.

After lunch, we received the visits of the *dioulas*. The *dioula* is a typical personage of Soudanese civilisation. It is characteristic of it, as the orator characterises Greece. The word may be translated in various ways, as "merchant," "courtier," or "go-between." Here is a suppleness of meaning which suggests, without need of emphasis, all the eclecticism of transaction offered by the *dioulas* with a good grace which is always as obsequious as it is calculating.

Since our arrival at Timbuctoo the *dioulas* have come to offer their services. They come every day to besiege our doors, to attend our good pleasure, and consider that they have not wasted their day, whether we buy in the evening a sixpenny purse or order a large quantity of carpets or rugs. Time has no value for Africans.

Our *dioulas* were called Alassan Aribatti, Badi, Cheko Bali, Malmadan Kalilou, and Moulay Aragani respectively.

Alassan Aribatti is a Moor of short stature, thin and supple. His face is decorated with a funny little beard and he has two immense bloodshot eyes which roll constantly. He admires everything he shows us.

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The price is generally 7 francs 50, which he pronounces in four raucous syllables which issue from his throat like the sound of a gong. Alassan Aribatti is the most amusing of the *dioulas*. It is always our interest and not his. When he shows us an object worth 100 francs and we offer 25, he says : "All right, very good, if it gives you pleasure."

Badi, always clad in a blue gandorah, has slow and deliberate movements. He patiently awaits the decision of the buyer. Whatever it is, his face remains impassive.

Always wearing elegant white, Cheko Bali, a half-caste with a Moorish father and a negro slave mother, poses as a great merchant. He is less accommodating than the others and resists our offers more persistently.

Malmanan Kalihou is an embroiderer. With his fine black hands he presents to us fine *boubous* (Soudanese clothes). He is an artist with some taste as regards the choice of colours and evidently loves his art.

Moulay Ara Aragani always has less goods to sell than his competitors. Sometimes he has nothing. Then he comes as an amateur, an onlooker, for the sole pleasure of disputing with the others.

January 9th.—We are becoming familiar with Timbuctoo. The town appears alive chiefly in the mornings and evenings, the fresh hours when a light breeze comes from the surrounding bush and the majestic river, flooded to-day, whose lemon-coloured waters stretch below Kabara like a vast sea.

This morning we are going to visit this great and beneficent Niger, to which one must address prayers



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and thanksgivings such as the laborious populations of Egypt formerly addressed to the Nile :

*We give thee the names thou deservest,
O Divine provider of all the divine rites.
King of the fishes, master of the sky, father of the corn,
Thou by whom the granaries of the poor are filled.
And all goods are multiplied and the harvest
More fruitful, and the Gods happier.*

These fine lines of Remy Beaurieux sing in our memories while we urge our horses along the track across the thorny forest towards Kabara.

The marigolds grow in harmonious curves, the water glistens under the water-lilies, and the pirogues glide along lightly and smoothly, primitive in aspect with their boards tied with vegetable fibres, obeying the efforts of black watermen splendidly naked in the sunlight.

On the banks the women, mostly naked also, wash their linen. Others fill jugs of archaic shapes, or leather water-bottles of buck-hide, and brass vessels, which they then carry on their shoulders, ascending slowly towards the camps of the Tuareg, Berabishes, and Foulahs.

These scenes are repeated ceaselessly, in an uninterrupted film, as far as Kabara, the port of Timbuctoo on the Niger, which stretches majestically, flecked with silver foam, between its flat banks bounded by a double line of reeds.

To the west, where the land is more low-lying, the inundation stretches without limit over an immense space where the mud it deposits will, in a few weeks, produce a growth of rice, millet, sorgho, and cotton.

This last crop reserves for the future of the Soudan

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a considerable property which will perhaps some day set free one of our great national industries, that of cotton-spinning, from foreign control. The cotton of the Soudan rivals in fineness and length of fibre the cotton of Lower Egypt. De Cérès and Estienne witnessed the vigour of growth of the cotton-trees in the Niger alluvium, as in the Nile delta, when they visited at Diré the plantations of the Hirsch establishment.

The eye does not tire of the great mirror of waters whence the powerful branches of some tree emerge here and there, an observation post for whole families of fishing eagles, cormorants and ibises.

Innumerable birds inhabit these lake countries. Whole squadrons of coot, teal, and duck perform their evolutions. Flamingos dot with pink the submerged meadows where the current makes the tops of the grasses tremble. Numidian cranes survey with their deliberate movements the sand-banks where pelicans and marabouts sit stolidly ; the former like grave philosophers with shaven heads, the latter like paunched and rather dyspeptic burghers, come to sit by the water for easier digestion. Slender grallies, superbly clad in green enamel, run over the water-lilies, and egrets and grebes fish in the shallows.

The Niger equally nourishes men, and many fisherfolk set forth from Kabara. After lifting their nets they land full baskets of fish of all sizes, shapes and colours, which will be sold this afternoon to the housewives of Timbuctoo, to be fried in earth-nut oil and Karitch butter. Another vision of ancient Egypt, recalling with almost painful exactitude certain frescoes in the cellars of Thebes and Memphis.

Returning, we turned aside over the bush to visit, in the clearance of Uru Maïra, the monument to Flag-Lieutenant Aube.

It is a simple cross, bearing on a small plate the following inscription :

*Here perished
in attacking an army
of Tuareg and Arabs,
Aube, Léon, Naval Flag-Lieutenant
Le Dantec, second Boatswain
And the Faithful Laptots
Isaac D'dyaye, Cantara Taraoure,
Dia Kounta Soumare, and
Fifteen others, who set out
from Kabara.
Timbuctoo heard, came,
and avenged them forthwith.*

Colonel Mangeot told us the sad story incidental to the taking of Timbuctoo.

It was on December 25, 1893. Naval Lieutenant Boiteux, arriving at Kabara on the 8th with his gun-boats, proceeded in a barge to Timbuctoo, where he made his entry on December 15th. Aube remained on the Niger with the rearguard. He was attacked by Tuareg in the morning, but drove them off with his guns. Unfortunately his boldness suggested a fatal plan. Seeing the enemy in flight, he decided to pursue him, and landed at the head of his little troop, Boatswain Le Dantec and eighteen laptots. He engaged the enemy in the thick treacherous bush. Aube and his men lost their way and fell to the last man under assegais and spears. In vain did the Ensign endeavour to hold his own against his assailants,

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innumerable behind the thorn-bushes. Aube was one of the first to fall, then Le Dantec. The laptots met their deaths over the bodies of their leaders.

Returning from our visit to the Niger, we dwell on the spectacle of the streets. It is picturesque, varied and amusing, ever full of new visions.

The life of the blacks—an essentially primitive life which has certainly not changed much since the agglutination in cities of the first human groups—parades itself without mystery, one might say without shame.

For youths—and among these we must reckon young fellows often above the age for which Roman etiquette prescribed the manly toga—the usual costume is that of Adam before the Fall. Thus lightly clad, they come and go, walk, run, dance, gambol and seek with the utmost goodwill to do us some service, such as the lad who made himself the slave of our friend Castelnau and proudly carried his camera.

Many of these young people are well built, tall and thin, with strong muscles, like living statues of bronze, the bright surface of which despises the hypocritical convention of the fig-leaf. Some of the women are also nude. Is it mere chance that they are just the youngest and prettiest ?

Flossie is quite shocked by this lack of decorum. Wearing herself a robe of fine white wool, she does not understand how one can walk about so inadequately clothed. No doubt the colour of these ladies' skin also disconcerts her. She shows her disapproval by barking about their legs, which frightens some of them and amuses the others.

Flossie scored a great success, a success like that of the Hoggar.

At the present moment she is the most outstanding personality of Timbuctoo, the event of the day. Never have the inhabitants seen so small or white a dog. Here, as at Arrem Tit, the question of her real race crops up. Many were inclined to take her for an unnatural animal, connected, like our cars, with the somewhat diabolical cleverness of the Roumis.

"All French manner," they said to each other with an air of wisdom. For it was clear that nothing was impossible to the French, those magicians who could construct a mehara of steel and whose power, they said, went so far as to be able to travel through the air on big birds with linen wings.

The number of entirely naked women in the streets of Timbuctoo is not great. Many wear a cloth round their hips, their torso remaining uncovered. Thus we were able to certify that not all the negresses, as has been alleged, have pendant breasts like empty leathern water-bottles or hideous calabashes. There are some whose bosom rivals the best productions of classical art. And do not the Gallas of the Upper Nile and Abyssinia belong to the black race, those women whose admirable breasts were highly prized by the slave-dealers of Cairo and Baghdad?

Without any sense of balance, the clothed women of Timbuctoo are generally covered like veritable catafalques, wearing *boubous* with great, heavy folds, and mantles of thick wool. Worn by the Tuareg and the Songhaï, the costume is not without an effect of sumptuousness. Their elegance is barbaric, but it shows that innate sense of drapery which often

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astonished us among the Bedouins of the Northern Sahara.

A superb negress, standing erect in the doorway, straight, grave, and somewhat hieratic, in a sort of embroidered simare, her fingers full of rings and her breast heavy with silver necklaces, evoked in us the image of the Sulamite woman, "black, yet comely," to whom King Solomon dedicated those passionate phrases in the Song of Songs.

A little farther, at the crossing of three streets, we saw a scene reminiscent of old Memphis : beside a stove resembling an anthill we saw a strapping girl baking her bread. She manipulated the flat trowel as it was done at the time of the Pharaohs by the Nubian women of the royal kitchens whose black profile is engraved for all time on the walls of the underground funeral chambers of the Valley of the Kings.

The flame glowed at the open mouth of the furnace, and licked with its many tongues the purple firebricks. Agreeable smells of hot dough mingled with the balmy scent of the smoke ascending in great spirals into the sky, like puffs of corded wool.

Black Eve carries on the most intimate occupations on the threshold of her dwelling, even those of her toilet. Let us watch this hairdresser dealing with the fuzzy head of one of her companions. She is an artist. An old knife, a long iron needle, and a sort of curry-comb are the instruments she uses. The head of her client is minutely shaved but for three tufts which have a grotesque effect, one of them over the forehead and one over each ear.

The elegant ladies of Timbuctoo attach much value to this clownish coiffure, which is said to have

been introduced long ago by a favourite of the great Emperor Kankan Moussa.

There are other ways of dressing the thick black wool which served the Fulah, Toucouleur and Songhaï ladies as hair. It is dressed in parallel ridges and stuck together with clay, or even with cowdung ! Shells, glass beads, and amulets are added, borrowed from every realm of nature and from the most unexpected products of European industry. We need only mention the decanter stopper mounted in some ingenious way in the middle of the capillary edifice of a young demi-mondaine of the provoking smile who lived in the neighbourhood of the Place Badjindeh.

To these fantasies the Berabishes and Moors prefer the innumerable small tresses which they stick on their skulls with tallow, butter, and oil.

The care of the head also includes long and productive sittings devoted to the chase. We pass lightly in front of that matron who is busy catching the parasites of a young beauty who surrenders herself to her expert hands with an air of perfect contentment.

The male hairdressers are in the same street. The negro usually has his head shaved, like the Arabs of the north. As for the Moors and Berabishes, their fuzzy wigs contribute largely to their forbidding, savage, and cruel appearance.

Our walk through the streets of Timbuctoo takes us past the houses of the explorers René Caillé, Bartt, and Laing. The door is surmounted by a plate with an inscription.

On returning to the Regional Palace, we crossed quite a caravan of Fulahs mounted on pack-oxen. They were swinging to the slow pace of their strange

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mounts. It was thus that the Songhaï emperors formerly progressed. The proud Tuareg cavaliers are to-day full of contempt for the ox-riders, whom they cover with mockery and on whom their womenfolk make satirical verses.

January 10th.—Colonel Mangeot invited us for this day to a gazelle hunt on the north-east of Timbuctoo. We started at daybreak. It was fresh, almost cold, and we shivered under our linen coats.

A dozen beaters accompanied us to carry our guns. They seemed very happy at being allowed to follow us. They were splendid blacks, riding their little Nigerian horses in a masterly fashion, though rather hard.

Horses are said to have been introduced to the Niger by the Moors, but on the steppes of the right bank of the river there are herds of wild horse-like animals called *kumrahs*, whose presence suggests a native origin and domestication.

The Nigerian horse is a rustic and robust animal, somewhat resembling the horses of South Russia, and especially those mounted with such dash by the Ukraine Cossacks.

Three miles from the town we saw the first gazelles. Everybody took up his carbine, and the chase commenced. Some on horseback, the others on foot, we advanced through the high grass and the thick scrub.

In an hour's time we had succeeded in shooting two gazelles in good condition. These we had killed. A third, badly wounded, continued its flight. Our chase became a veritable hunt.

The tracked animal has the same tricks, the same

defences, one might say the same tactics, as our great European game, the stag and roebuck. It constantly tried to spoil its trail by sudden changes of direction or by hiding in the bush to let us pass and then starting in a new direction.

Pursuit was rendered more difficult by the absence of dogs, but our beaters had almost the instinct of a pack of hounds. They always guessed the movements of the fugitive. Having at last sufficiently approached it, two of them, the best runners, rushed forward, sabre in hand. By a supreme feint, the gazelle escaped them once more, but it was a last effort. One of us saw it lying under a thorn-bush. He aimed and killed it.

In the evening, before dinner, we invited the mechanics to come and drink with us a bottle of old port. They came, freshly shaven, real sportsmen.

"The foundation members of the Automobile Club of the Soudan," said Maurice Billy.

The reunion was very friendly. We profited by it to tell our faithful collaborators how grateful we were to them for the efforts they had made, and to express the sentiments of sincere friendship which we should always cherish towards them.

They gave us an account of the condition of the cars, which they had quickly overhauled. We felt justified in attempting a return journey by way of the desert. Everybody wished for that, but we could not lightly come to such a decision. We remembered the fatigues undergone, the obstacles surmounted, the hostile sand-dune, the cold nights and broiling days, the hammada with the sharp stones, the chaotic gorges of Arrak, and then the terrible Tanesrouft. A return

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journey would mean another struggle against wind, sand, and stone, and even against ourselves, the lassitude of our muscles, the overpowering sleep, perhaps even against men, for would not the *rezzou* who had missed us watch our trail? What matter! The very idea of conquering the desert once more filled our men with enthusiasm. We shall finally decide in a few days' time, after a more thorough examination of the cars.

January 11th.—Timbuctoo is in festive mood. The azalaï, the great caravan which goes twice a year to fetch salt from Taoudenit, has arrived. It brings over 2,000 bars of this precious product, the basis of the town's prosperity.

The whole population had put on its gala dress to wait for it at the Hugueny Fort, where the sound of tom-toms was already heard.

We had ourselves decided to go to meet it as far out as possible and to surround it so as to judge of the protection which could be accorded to it by a few caterpillar machine-guns cars.

The azalaï is, in fact, always seriously in need of protection, for it offers too tempting a prey to the marauders of the bush not to excite their cupidity.

At present its security is assured by an escort of mounted rifles and *goumiers*. One may imagine that a few cars armed with machine-guns might replace them advantageously. Our experiment would therefore be of great interest.

Colonel Mangeot accompanied us. While we made good speed through the bush, he gave us some details concerning the azalaïs.

“Think of the time,” he said, “when the great Songhaï kings of the Askia dynasty made of the Mysterious City the Pearl of the Desert. One must remember the exchange of gold-dust, ivory, feathers, salt and captives from the Soudan for the rich carpets and brasses of Morocco and the tobacco and dates of Touat. Our azalaïs are like a last echo, a final vision of those legendary splendours. They also recall the fierce struggle carried on by the old Songhaï kings against the Moroccans for the possession of the salt mines.

“Formerly the Timbuctoo people exploited Teghassa, 60 miles farther north, but under the constant attacks of the people of Marrakesh they discovered the rich rock-salt mines of Taoudenit. These mines have been constantly worked since 1594 and can be considered inexhaustible. Every year they yield from 100,000 to 150,000 bars, each weighing about 1 cwt.

“This salt, the purest of all the Sahara mines, finds its way into the Bend of the Niger as far as Mossi and even British Nigeria. It is sold in the markets of the Gold Coast and Dahomey. Everywhere it is a prime product. One may understand what value the commerce of Timbuctoo attaches to the prosperity of the azalaïs.

“We might say that Timbuctoo lives on salt. If that precious product were to disappear from the market, the city whose name was known to the whole world for centuries before the French occupation could only die, and nothing but ruins would be left of this once prosperous city.

“It is our duty to struggle against this eventuality. The military authorities understand this well. One

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may say that the whole policy of this region is based on the salt question. As soon as our camelry was organised a detachment served as an escort for the azalaïs, and since then the caravan has never been seriously attacked. Only those who, against our advice, persisted in raiding alone, have been victims of the marauders.

"Yet, in spite of our efforts, we can hardly deal with more than 30,000 or 32,000 bars. The traffic is a function of the transport capacity of the nomads. We could without any difficulty extract three times as much, but we should not have sufficient camels to assure the transport.

"Internal struggles, political errors, the tripanosome, and especially the Moroccan robbers, have made great gaps in our herds. And if we had not had the happy prospect of seeing the end of the robberies brought about by the conquest of Morocco, we should probably have had to say good-bye to Timbuctoo.

"We must therefore carry on the fight, for victory is in sight. In four or five years, when the Tafilalet is occupied, when Morocco will have entered into Saharian politics, pillage will have lived its last. All those who still carry it on, the Reguibats, the Aït-Oussas, the El-Gouassen, and the dissidents of Mauretania, all of them very rich in camels, will become our best caravanners, and the traffic, formerly so prosperous, will resume its normal course. Then the Mysterious City, awakening from its long sleep, will forget the nightmare of the Tuareg occupation and, saved by the French conquest, will arise in its ancient splendour."

The Colonel's anticipations were so full of happy promises that we could but subscribe to them, and while he spoke with an accent of profound conviction which removed all our doubts, we felt proud in thinking that our raid would hasten the realisation of his wonderful prophecies.

But a great sound of galloping shook us out of our dream. It was the guards, come to tell us that the caravan was approaching. Soon a cloud of dust arose under the burning caress of the sun, already high in the heavens ; then we saw, like a monstrous serpent uncoiling itself, long files of camels, all laden with bars of salt. The sight was most impressive.

The azalaï advanced in a huge mass across the bush. One might think of a barbarian army, or the exodus of an entire people.

We turned about, and moderated the impetuosity of our engines to keep pace with the caravan.

The appearance of our cars did frighten the camels a little at first. Some of them showed fright at the sight of these massive squat monsters with flanks in motion. Some of them made a sudden movement of flight, but the *matræ* soon gave back to them their sense of dignity and duty. Thereupon, stretching their necks towards the south and sniffing the good smell of water which their subtle nostrils, no doubt, could already discern in the breeze, they placidly resumed their gait with its cradling rhythm.

The camel is never astonished for long. It has a philosophical contempt for contingencies. Its miserable life of perpetual wandering has rendered it a fatalist.

The camel-drivers accorded us a longer and more

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sustained attention. They immediately realised what our presence could mean to them, and it was with an unfeigned smile of satisfaction that they pointed out to each other our machine-guns.

The 11th of January, 1923, will be an important date in the history of the azalaïs. As we entered Timbuctoo with its delirious joy, where the wild "yoo-yoos" of the women resounded on every terrace, we had a clear impression that a new era had opened for the black metropolis. The caterpillar cars can provide for the security of the salt-caravans. The experiment is made. But do they not inscribe other and even more fruitful possibilities in the powerful trails engraved in the sand in parallel lines across the Soudanese bush?

"In spite of all our efforts, we can barely deal with 30,000 or 32,000 bars; this traffic is a function of the transport capacity of the nomads," said Colonel Mangeot just now. Could this quantity not be tripled and be put in equilibrium with the productivity of the Taoudenit mines, if regular automobile convoys were substituted for the camels?

January 12th.—This morning, as we were coming home from another ride to Kabara, two great Tuareg chiefs, Ather and Sheboum, awaited us in front of the Regional Palace. Both had been camping with their tribes a few days' travel from the Niger. They came to greet us.

Although very stout, Ather mounts his fine black stallion with ease. Sheboum is tall and thin, and also rides a beautiful animal. He was thickly veiled. His thick *litham* showed nothing of his face but his

bright eyes. His gestures were very noble. This Sheboum was once one of our most redoubtable enemies. It was he who attacked and annihilated the Bonnier column on January 14, 1894. Since then we have made peace with this man, and in the difficult days of the war he showed himself to be one of our most faithful subjects.

Ather and Sheboum followed us to the terrace of our dwelling and sat near us on a Goudhan carpet. We entered into conversation. The two Tuareg asked for particulars of our journey. They seemed to be struck by what was to them the magic speed with which we came from that fabulous Algeria of the North, a fertile country whither neither of them had ever gone, but to which the ancient traditions of their race were closely attached, imparting to it a legendary halo.

All the veiled men of the great South guard the obscure memory of the time when their ancestors dominated those rich northern countries. They know and still venerate the names of the nomads who once fought against the invaders, whether Kosaïla on the high plateaus or Kahena in the Aures Mountains.

The oral chronicle of the camps has singularly transformed the character and history of these personages, but when the great nomads think of the marvels of the past, it is always those imposing silhouettes which float before their ecstatic eyes.

Ather and Sheboum were also much impressed with the ease with which we had triumphed over the Tanesrouft. That ease is certainly relative, but it is complete when compared with the fatigues, sufferings, and dangers of all sorts which caravans have to encounter in those inhospitable regions.

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Our visitors showed an intention of retiring. We then risked a question which had been burning our lips for some time : Would Sheboum tell us the story of the tragic end of the Bonnier column ?

The Targui chief consented.

" The column had made many captures in the course of the day," he said. " When it camped in the evening in the Takoubao clearing, they were all full of joy. When the soldiers had installed themselves for the night, the leaders assembled in the Colonel's tent. Nobody suspected that we were there, in the shadows, under cover of the bush, waiting to attack as soon as everybody was asleep.

" One circumstance favoured our plan. It was just the presence of their booty. The French had committed the imprudence of tethering the cattle under the guard of a few sentries and a small number of Fulah auxiliaries, to the west of the camp. At that time they did not know to what extent our animals know our voices and obey us.

" We were on the east side of the camp, and we waited impatiently but silently.

" It was when the last light had gone out in the Colonel's tent that I gave the signal for attack. Then, all together, my men called their cattle. I had counted on the success of this stratagem, but the result surpassed my expectations. Hearing those well-known voices in the night, the animals suddenly woke up and rushed like a hurricane across the camp, trampling down the tents, the men, and the stacks of arms. In a few minutes everything was upset and destroyed, and we had only to go and knife the survivors in the darkness."

Sheboum spoke calmly, nothing in his voice denoting

the least perturbation. It sounded like a hunter describing some commonplace exploit with his hounds.

We should have liked to know the thoughts suggested to him by this remembrance. The expression of his face might have disclosed them, but his face was carefully hidden under the black folds of his *litham*. And his eyes? Was it chance, or was it with the intention of being a complete riddle? While he told the tragic exploit, the eyes of Sheboum were closed. The warrior had lowered upon them his long dark silken eyelashes.

So much mystery irritated us a little.

"Bonnier was well avenged," said one of us.

"Yes, by Joffre," replied the Targui.

Slowly his eyes opened. Some defeats are more glorious than victories. Sheboum's eyes reopened to express his pride at having measured himself against him who was to be the Victor of the Marne.

January 13th.—Visit to the Kaïd Ahmed Baba.

Kaïd Ahmed Baba is one of the most considerable personages of Timbuctoo. From the French point of view he is a devoted ally to whom we cannot be too grateful. It was, in fact, due to him that Ensign Boiteux was able to seize the town on December 15, 1893.

All colonials know how fierce was the struggle against the nomads who were the enemies of the French and the tyrants of the people of Timbuctoo. It was Ahmed who persuaded the population of the great city to trust themselves to our soldiers, to facilitate their entry into the capital of the Soudan and to help them to deliver the region from the

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marauders who infested it. It was he who, at the same time, succeeded in convincing Lieutenant Boiteux of the loyalty of Timbuctoo. The negotiations succeeded at last, and, while completing the military measures, they helped to realise our work of conquering and penetrating the Soudan.

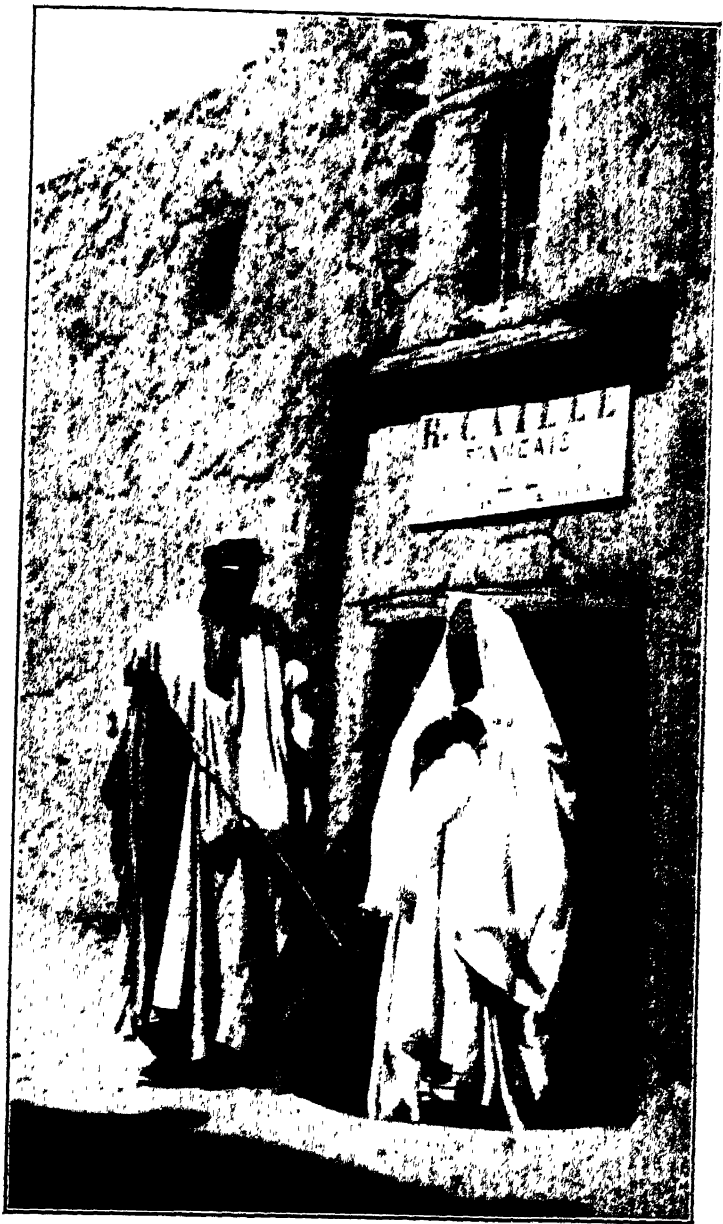
The Kaïd Ahmed Baba told us all these events in his room, where he received us. The room was peculiar inasmuch as it had no ceiling. It was really a narrow court, a square pit whose walls of *tob* enclosed a bit of sky over our heads.

"What workman could have constructed a finer dome?" he said, with a smile, his fine black hand pointing to the twinkling of the first stars.

The old man was stretched out on his bed, a sort of platted hurdle covered with woollen carpets. We were seated on stools also covered with carpets. Moroccan tea, exhaling a delicious perfume of mint, was served on a small hexagonal table, and two silent waiters attended to our slightest gestures.

Ahmed Baba talked with a certain nonchalance. He wore an elegant gadorah shining white. His sombre face had some distinction and preserved, in spite of his wrinkles, an astonishingly youthful expression. His eyes laughed under his wrinkled eyelids.

Steps were heard on the extraordinary stairs with broken and sometimes absent steps by which we had ourselves ascended to the room of our host. A shape was seen in the low doorway which gives access to the room with the ceiling of stars. It is Omar Amidhou, the Kaïd's collaborator and friend, one of those who helped him most effectively during the events of 1893.



THE HOUSE WHERE CAILLÉ LIVED.

Facing p. 162.

We exchanged handshakes and salaams with the new-comer, whereupon he squatted on his heels and mixed freely in the conversation.

Omar Amidhou knew our friend Félix Dubois well. The latter speaks of him at length and in excellent terms in his book *Our Beautiful Niger*, where he calls him "the Timbuctoo Gazette." No name could have been more appropriate. Omar Amidhou knows all the rascals of the town and tells the most risky stories with a little smile full of mischief and allusions whose effect is irresistible.

Speaking of the past of Timbuctoo, Omar Amidhou alluded to its former intellectual eminence. The city is proud of having been for over 300 years an active centre of Oriental culture. Its schools of grammar, of theology, and of poetry have remained famous. It preserves *taricks* (written chronicles) going back to its origin, and even in our days some of its inhabitants are found to be in possession of considerable fragments of the famous libraries which in the time of the Songhaï emperors attracted numerous students to its *medersas*. Ahmed Baba himself possesses several precious MSS. which he would not sell at any price.

January 14th.—A visit to the house of René Caillé is a solemn pilgrimage, especially for us who go to greet, within the walls of *toû* of this humble chamber, the memory of a precursor, and what a precursor !

René Caillé must be considered one of the most admirable models of energy ever produced by the French race. His journey across West Africa was an amazing exploit. He succeeded in accomplishing it in spite of all obstacles : the smallness of his

Across the Sahara by Motor Car

resources—an outfit bought for 2,000 francs, his entire savings ; the insufficiency of his knowledge—in six months he learned enough Arabic to pass as a Musulman ; and the poverty of his means of transport. But for the stage from Jenné to Kabara made in a pirogue on the Niger, thanks to the benevolence of a chief whose friendship he had secured by the gift of an umbrella, it was on foot, with a wallet on his back, that the explorer traversed the mountains of Fouta Jallon, the Soudanese steppes, the immense deserts of Mauretania, and finally all Morocco to Tangier, through Fez and Rabat.

Caillé vanquished suffering itself. He triumphed over the fever which laid him low for three weeks, helpless and shivering, in a dirty hut, and the scurvy which rotted his jaws. When he entered Timbuctoo, on April 20, 1828, his bare feet were so blistered that they left a bloody track in the sand.

Externally, the house where René Caillé lived from April 20 to May 4, 1828, does not differ from its neighbours. Inside, it is better lighted owing to a small loophole looking out on a side street which the explorer is said to have cut with his knife in the *tob* wall. He probably did this as a precaution, in order to be able to write his notes far from prying eyes. The mere fact of not writing from right to left, or in Arabic characters, might have revealed his identity. Then it would have been the end of him, and he would have suffered the tragic death of Gordon Laing, the British explorer, who was killed in the same street a few years later.

This detail shows the extent to which the life of René Caillé was in danger at Timbuctoo, at a time



THE MARKET OF TIMBUCTOO.

when the city defended itself bitterly from foreign curiosity.

If our compatriot was able to carry his bold enterprise through, it was, no doubt, due not only to his indomitable energy, but also to his meticulous prudence.

One is astonished at the self-control which made it possible for him not to depart for a single instant, over two years, from the rôle he had set out to play, viz. that of an Egyptian prisoner of the French taken as a slave to Senegal and seeking to return to his country after his escape.

Indeed, under whatever aspect we may study him, René Caillé always appears as an exceptional character, marvellously endowed for that life of adventure which he had chosen while still quite young.

January 15th.—This morning we roamed about the town. One meets even now many Fulahs, Tuareg, Moors, and Berabishes, all come to the market from outside. Their compact groups, much more numerous than formerly, give to the streets an unusual character and remind one of those days when Timbuctoo was every now and then the victim of all the marauding and predatory bands infesting the surrounding bush and profiting by every occasion to invade and pillage the town.

The Fulahs mostly come from great distances, on their slow oxen bearing not only the driver, but all sorts of merchandise : half-tanned leather, bales of wool, sacks of earthnuts, and even balls of raw rubber and elephant tusks from Fouta Jallon and from the Congo.

Across the Sahara by Motor Car

The Tuareg, armed with lances, and with faces carefully veiled with black *lithams*, ride their small nervous horses, saddled with a simple rug by which are suspended as stirrups those rings of leather or iron on which only the great toe can be rested.

Some of the Moors mount dromedaries which are heavier and clumsier than the fine meharas of the desert, overfed beasts whose fat shapes would provoke smiles of pity from the Chaamba and the nobles of the Hoggar.

The Berabishes, on the other hand, go on foot—tall thin devils with fuzzy wigs, recalling the gipsies met with at certain times of the year on the dusty roads of the South of France to the great damage of the inhabitants.

We followed the crowd to the market-place. That immense square was full of movement, life, and colour. Food products are generally sold by negresses of opulent form squatting in the dust behind a mat which serves them as a shelf as well as a counter.

Here are the sellers of kola nuts, which are kept carefully wrapped in moistened bark. Then there are the sellers of *fakouhoi* and of *diminta*. *Fakouhoi* is a condiment with a pretty green colour, used for preparing sauces. *Diminta* is the name of a thick mess of millet seasoned, according to taste, either with honey or with capsicum.

The capsicums and pimentoes are the kings of the Timbuctoo fair. They glisten in the sun, passing through all shades of purple, from the freshest, which are of a vermilion or blood colour, to those which have been dried on the terraces and which look like varnished mahogany. Their red colours mix with the gold of

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colocynth, the white of kapok, and the beautiful violet colour of the *sokomba*, a product extracted from the roots of millet, used for dying leather, wool, and cloth.

We stopped in front of a Nigerian native who was selling shells, glassware, and amulets. He was a sort of colossus with the face of an animal. He told us he had come to Timbuctoo up the Niger in a pirogue, and spoke in a tone of great admiration of the vast and almost impenetrable forests which still cover certain parts of his country. "Much game," he said.

And the fellow set out to enumerate what would be within reach of a hunter's gun in that tropical region. But one would say that he intoxicated himself with the sound of his own words, and his exaggerations soon became so flagrant that we were almost tempted to ask him whether he happened to be related in some way to a great white chief of the name of Tartarin.

The Tarascon hero would, no doubt, have been jealous of the imagination of this black rival who, without turning a hair, told us the story of a hippopotamus so big that it could swallow a steel-pooped gunboat with its munitions and crew !

In a few days we shall have to start on a shooting expedition down the Niger on two shalands. We hope to see some specimens of the hippopotamus, but not that particular one !

January 16th.—Colonel Mangeot started to-day for France, after having administered the Timbuctoo territory for three years. The whole European colony decided to accompany him as far as Kabara.

It was 2 p.m., and the sun was broiling as the caravan left the town, an imposing caravan of officers,

Across the Sahara by Motor Car

officials and merchants. A platoon of black guards carrying long lances with red pennons went in front, and some Tuareg followed on horse or camel-back.

We arrived at Kabara. The hour of leave-taking had come, and everybody felt it. An old woman named Cacahuat shed torrents of tears. Her grief might have appeared ridiculous, but it was so sincere and denoted such a profound melancholy that nobody was tempted even to smile.

The Colonel went on board his shaland and went aft. He remained standing for a long time, his arms crossed, gazing, for the last time perhaps, upon the land where he had passed so many years.

While the fine silhouette of the colonial officer, full of distinction and energy, gradually diminished on the horizon already reddened in the evening light, we thought of all those who worked, like him, for France in those distant colonies, and have some day to leave their work unfinished, with the secret anxious questioning whether it will be well carried forward.

January 17th.—We find this morning, on reading over the account of our journey, that we have not yet spoken of our “boys.” Such carelessness would be unpardonable if we did not immediately make amends.

Our boys are named Sika Mahika, Baba, Omar, and Soumgalo.

Physically, Sika Mahika is tall and thin. Mentally, he is a timid young man and sometimes undecided,—the black replica of the legendary Triplefoot. His usual attire is a long shirt of immaculate whiteness. A soft felt hat completes his wardrobe, but he only wears it when we authorise him to do so as a sort of reward.

Baba plies all the known trades and some others besides. He is an excellent cook, he rides a horse like a jockey and a camel like a Chaamba courier. In the matter of clothes he practises an eclecticism full of unforeseen and fanciful touches. He often exchanges the rudimentary costume of an Apollo for a calico *boubou* or for a dress which is neither European nor Arabian, surmounted by a melon hat giving the most absurd effect.

This dandy knows all the best-looking black women in the town. He will gladly take us to see some of them, "only for the pleasure of pleasing your eyes," he says, with a little air of modesty.

Omar is lazy but not stupid. He loves practical jokes. We might well compare him to the classical Parisian Titi so dear to our popular novelists if he would only wear a costume less flimsy than that which is provided cheaply by the mere blackness of his skin.

Soumgalo is serious, attentive, and devoted. He is the one among our servants whom we decided to take home with us. He will be the most stylish of Parisian valets de chambre.

January 18th.—The two barges, the *Tera* and the *Boromo*, are being got ready. We intend to take them for a trip down the Niger as far as Gao and perhaps farther, if we have the time.

We feel attracted towards those mysterious horizons where the great African river disappears in the east, not only by the wish to study the countries it traverses and the tribes which live on its banks, but also by the hope of some fine hunting experiences.

The Bend of the Niger is indeed the hunters'

Across the Sahara by Motor Car

paradise. The very waters of the river are peopled by cayman and hippopotamus. On the green islands and in the tall reeds which cover the two banks are innumerable birds of every sort and size : heavy pelicans with their enormous beaks, great Moorish cranes with their elegant walk, flamingos, which, in repose, seem hewn out of coral, grey herons, ibis, cormorants, egrets, and tiny graceful bengalees which hang their nests to the flexible twigs of cat's-tail and adder's tongue. On the dunes reflected in its waters the fenek and the jackal dig their earths. On the rocky peaks which overhang the rapids, eagles and vultures build their eyries. Lions, panthers, porcupines, wild boars, hyenas, and giraffes come and drink in the water-courses. Great herds of gazelles, antelopes, and oryx live in its plains, without counting lesser game such as hares, guinea-fowl, and quails, which one hardly notices.

So rich and numerous a fauna cannot leave the hunter's soul at rest. We hope to prove to our own satisfaction the excellence of our arms, consisting of Winchesters, hammerless guns of various calibres, and French cavalry carbines of 92 model.

Apart from the steamers which ply a regular service between Bamako and Kabara, the barge and the pirogue are the sole craft now in use on the Niger. Nobody goes beyond Kabara except a few officers or officials returning to their posts. A permit is necessary for navigating the eastern reaches of the river. Naturally this permit was granted to us without any difficulty, and all dispositions were taken by Colonel Mangeot and Commandant Fauché for facilitating our journey. Wherever we went we were received as great chiefs.

Besides our two barges, the *Tera* and the *Boromo*, and our crew of *laptots*—black boatmen with powerful muscles and clever with pole and paddle—two devoted guards, Abdul Touré and Ibrahim, were placed at our disposal. The former accompanied last year the Duchess of Aosta, when that valiant princess accomplished on the Niger an expedition covering approximately the same ground as ours.

Our friend de Cérès will accompany us. The other members of the expedition will remain at Timbuctoo to subject the cars to a complete revision, and will then await us at Bourem, whence we shall travel north across the Sahara.

Our return across the desert is, in fact, now decided upon. The state of our valiant caterpillar cars allows us to make this new effort, which we shall undertake all the more readily for having received from the War Minister the following telegram :

Am glad to learn the success of your mission, and congratulate you. Wish you equal success and good going for your return, which will be striking confirmation of the good result obtained.

Such precious encouragement we had to look upon as an order. Had we been tempted by the prospect of a comfortable cabin on board a mail-boat from Dakar to Bordeaux, it would now have been out of the question.

On receiving this information by cable, M. André Citroën, delighted with our decision, informed us of his intention to meet us as far out as In Salah. The prospect of this meeting gave us great joy. We shall, therefore, tackle once more, with a light heart and full of hope, those great solitudes which the

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Prophet Jeremiah once called "The Lands of Fear."
In our eyes they have become the Promised Land.

January 19th.—Chasing hares in the environs of Timbuctoo. We rode on horseback, with rifles across our saddles, and of course without hounds. Still, we killed eight hares in less than an hour.

In the evening, Madame Fauché and the Commandant gave a champagne party to the whole European colony in honour of our mission.

January 21st.—To-day our stay at Timbuctoo comes to an end. We depart to-morrow in our barges in the direction of Gao.

Commandant Fauché surprised us by organising for this last day a series of fêtes in our honour. We were present at pirogue races and athletic tournaments, in which we admired the training of the black riflemen.

At the conclusion of these festive proceedings we made some purchases from a notable dealer in the Place Badjindé called Abd-el-Kader.

This Abd-el-Kader is a Moroccan installed at Timbuctoo for several years already.

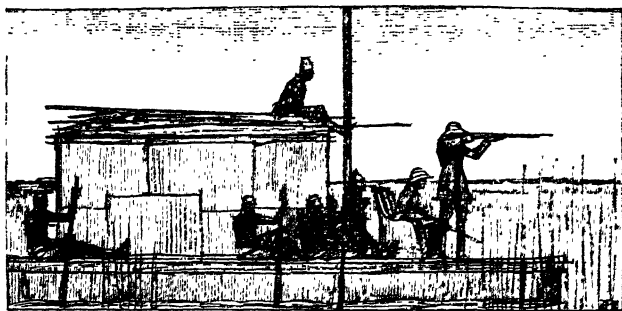
"Formerly," he told us, "I got my goods across the Sahara by caravan. To-day they come via Senegal, using the railway line from Kayes to Bamako. I hope to live to see the opening of a new trade route to the north, of greater speed and economy, by means of the extraordinary machines by which you have come so quickly yourselves."

May this Moroccan wish have the force of a prophecy!

CHAPTER VII

ON THE NIGER

*Those who Stay Behind—The Departure of the Barges—
Our first Crocodile—A Model Chef—The Duel between
the Sand and the Water—In the River Bush—Tom-toms,
Dances and Melodies—Moonlight—Sunrise—The Hippos
—Othello—A Sheep for 7½ Francs—At Bamba—Frenzied
Dancers—A Cemetery—We Kill some Caymans—Gao,
the Memphis of the Niger—Ansongo—A Noah's Ark—
In the Warm Night of January—Some Halts on the River
Bank—The Chase in the Bush—An Attack of Jungle
Fever—Medical Consultation by Telegraph—Palaver—
The Legends of the Songhai Country—The Beauty of Gao—
A Negro Babel—Taoura of the White Goat—The Poetess
Shekou—The Death of the Laptot—The Buried Town—
Return to Bourem—Farewell to the Niger.*



TIMBUCTOO, *January 22, 1923, 4 p.m.*—The sun is beginning to set. Timbuctoo seems less grey. The crew and passengers of the *Tera* and *Boromo* are ready. Our friends and our mechanics say good-bye to us. Castelnau, somewhat indisposed, takes a film languidly. We regret being unable to take this good friend and excellent operator with us. Estienne also stays behind, much to his disappointment, though he conceals it under the happy mask of his smile.

Nor will Flossie take part in the expedition on the Niger. The great African river holds for animals of her race, especially as small ones as she, certain formidable dangers, chief among which is the crocodile. The crocodile has an inordinate appetite for dogflesh. It is better for Flossie to stay in Timbuctoo. She has so many friends there that the separation will not seem cruel. In a few weeks' time we shall find her again at Bourem.

The laptots do the final handling, the shalands glide slowly off and the mosque of Jijiriber disappears from our sight.

Night descends on the thorny bush country. We meet many pirogues with archaic forms, pushed by muscular blacks who strikingly recall the admirable paintings in the caves of Upper Egypt. At the poop

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of some of these boats fires are lighted which enrich with a reddish glare the blue veils of the twilight.

On the top of those primitive ovens are fat-cooking pots whose joyous song evokes the memory of copious feasts. Here, on the fertile banks of the Niger, the people eat when they are hungry. There is none of that austere and almost ascetic life found among the Sahara tribes.

We dined at Kabara, on our shaland. We paid off the laptots under Sergeant Thomas, charged with the navigation of the river, and we departed in the night.

January 23rd.—At 3 p.m. we arrived at the small village of Bourem Iaali, about 20 miles from Timbuctoo.

About 6 the sun rose abruptly over the high grasses. We went on board the *Boromo* to have some coffee and excellent toast. The *Boromo* is used as a kitchen and dining-room, and the *Tera* as a studio, smoking-room, hunting-post, and bedroom.

We started again. We shot a few birds and then tidied the shalands. Tables were installed near the door of the cabin, with books and sketches. Arms and cameras were hung on the walls over them. Large wicker chairs completed our furniture. The beds were folded up in the daytime.

Our two floating houses reminded us of those Quaker huts described by Fenimore Cooper and Mayne Reid in their romances, and of those great waggons drawn by oxen across the plains of South Africa, which once were the only wealth of the Boers.

On the Niger

At 9 a.m. we perceived our first crocodile 400 yards from our shalands. It slept with its jaws wide open, surrounded by birds which seemed in no way disturbed by its presence. But for the metallic lustre of its scales it might have been taken for an old log of dead wood. We approached, but it plunged and suddenly disappeared before we had time to shoot.

At 10 a.m. we made half an hour's halt and shot at a big cayman. The bullets struck it full in the body, but we could not get it.

11 a.m.—At Borri, received with tom-tom. We exchanged our laptots from Bourem Iaali for others.

Noon.—We had a pleasant dinner. The menu was inscribed on the leaf of a water-lily :

NIGER SQUADRON, ON BOARD THE BOROMO.

DÉJEUNER DU 23 JANVIER.

Poisson du Fleuve
Omelette Soudanaise
Gigot de Gazelle
Pommes au Karité
Ananas au Naturel
Café
Liqueurs

N.B.—The Management reserves the right to change the order and composition of the repast.

This menu was conceived by de Cérís, and carried out under the superintendence of Baba and Omar, who were promoted to be cooks, while Soumgalo was specially attached to the *Tera*.

For the whole duration of our river expedition

Across the Sahara by Motor Car

de Cérès assumed with unremitting zeal and competence worthy of every eulogy the delicate and important functions of a *chef de popote*. Our comrade deserves to be called the African Vatel.

At 1.30 we shot a cayman at a distance, at the moment when he plunged. Since the morning we have shot a large number of birds of all sorts.

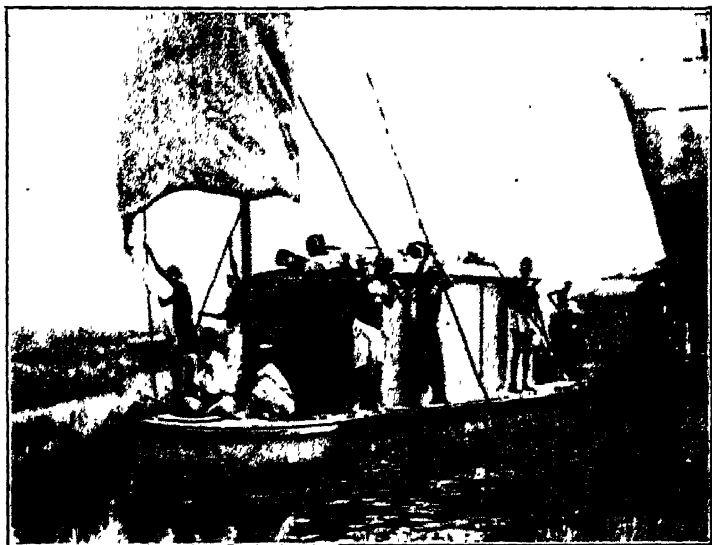
At 2 p.m. we arrived at the little village of Massao Din Guira. A river Targui passed, proud and dignified, accompanied by negresses.

The dunes here touch the river, which reflects their tops, coloured differently every hour. The sand and the water, death and life, are in these regions two forces waging unrelenting war against each other. The hot wind of the desert incessantly pushes those great waves of inert matter to the assault of the Niger, as if it wanted to dry up that fertile vein where the generous blood of the Soudanese land runs full between its banks. The river says: "On ne passe pas." Its force is made of obstinacy. Licking with its wet tongues the foot of the threatening dunes, it disintegrates and stops them. Yet its victory was not always unclouded. The learned say that some day the Niger must break down like a tired duellist.

We there touch upon one of the great obscure but ever active causes which change the face of our planet. Coming from the mountains of Fouta Jallon, where it springs under the ninth parallel of latitude, the Niger first flows to the north-east. Logically, it should continue in that direction. At first it did so, as geologists inform us. At the level of Timbuctoo it entered the low valley of Faguibine, which is still boggy and regularly inundated, then it flowed into



A HALT FOR HIPPOPOTAMUS.



AMONG THE NIGER WATER-LILIES.

the lagoons of Jouf, now transformed into vast salt-marshes, and finally it formed in the middle of the Western Sahara a sort of internal sea of little depth and hazy outline. This state of things was destined in the course of time to undergo profound modifications. The history of the Niger enables us to trace what morphologists call a *coude de capture*.

The desert constantly encroaches upon the valley of the river. The latter gives way slowly before its redoubtable adversary, and eventually retreats. Then the liquid mass seeks a new outlet. It finds it in the neighbourhood of Bourem, by cutting through a transverse ridge of ancient primary rocks separating it from another depression running clearly north and south. Through this it passes in rapids and cataracts until it reaches the Gulf of Guinea.

Thus the Niger finds its way of escape, its route to the sea. While it blesses other regions with its fecundity, the victorious *erg* unrolls on the plains of Taoudenit the heavy folds of its implacable winding sheet.

What has happened to the Niger has, no doubt, also happened elsewhere and will happen yet again. Is this not one of the principal causes of the progressive and relentless drying up of the Sahara ?

KAGHA, 3 *p.m.*—The river is very wide and flows slowly and majestically, without a ripple. Its warm waters glance in the sun with a metallic lustre which the eye can hardly support.

3.45 *p.m.*—We proceeded close to the right bank of the river. A small cayman showed itself near the shaland, but disappeared before we could shoot.

Across the Sahara by Motor Car

At 4.30 we landed and hunted for some distance along the river, shooting numerous birds.

On returning we lost our way in a wide stretch of thick grassy bush, interspersed with numerous rills, which entirely cut off our horizon. This incident gave us an occasion to find to what extent the sense of locality is wanting in the blacks. The two nigger carriers did not know at all where the river was. If we had followed their advice, they would have led us to the north in the chimerical hope of finding it. Our compasses, fortunately, corrected their ignorance.

At 6 p.m. we arrived at Bera-Goum-Gou. Still very wide, the Niger was covered with grasses, immense plants rocking in the hot but barely perceptible breeze. They were so high and dense that the huts of the village were barely visible over their tops.

A sound of tom-tom. Most of the dancers carried their babies on their backs. They clung to their mothers' shoulders, and their hairless heads, shining in the sun, bobbed about like ebony balls to the rhythm of a frenzied quadrille recalling the traditional witches' sabbath.

Night fell with a splendid red sunset on the Niger. Karo was passed during the night. The bank was illuminated by brushwood fires, and slow chants of infinite charm and sadness mounted to the stars. Mingling with the splash of the paddles, those nameless voices seemed to express all the nostalgia of the black races, whose attempts at civilisation never led to anything but disappointing failures in the course of ages on the banks of this fascinating river.

At Bera-Goum-Gou we took on board nine more laptots, in order to be able to proceed all night long.



THE WOMEN'S WELCOME.

Facing p. 180.

On the Niger

January 24th.—The night was very cold. The sun rose in a greyish sky, across which immense flights of birds were passing, so closely arrayed that each of our shots brought down numerous victims.

8 *p.m.*—We landed on a small island for shooting—mainly duck.

Dangouma was close by. We left our extra laptots here, with instructions to return by pirogue. At 10 *p.m.* we stopped for a few moments at the small village of Sala Koïra. We had tom-toms and then a substantial dinner.

GUIRI, 2 *p.m.*—Tom-tom. We went in a pirogue to reach the ducks in a branch of the river. After ten minutes we returned with twelve ducks and a kingfisher.

Left Guiri at 3.30 *p.m.*

At 4.30 we stopped at the little village of Nana. Amid the sound of tom-tom, the chief offered us fowl and milk, and we gave him 5 francs in silver, as is our habit for every chief and tom-tom. He was profuse in his thanks.

We stopped for a short time at Boya. The village headman proposed to come with us to show us where we could find hippopotami. But he was old, and as the night was very cold, we thought it better not to bring him along. Instead, we took a more robust guide, a black who veiled his face like a Targui.

It was a bright moonlight night. The river glistened, spangled with silver, between misty banks coloured like lapis-lazuli and opal. Near each bank

Across the Sahara by Motor Car

the line of reeds drew a black line which recalled the technique of certain Japanese prints.

After dinner we ascended a sand-dune overlooking the Niger. From its summit the view was imposing. The great African river seemed an immense galaxy, clearer and more luminous than that which draws its luminous track across the starry sky. At our feet a little fire burned, at which laptots chatted while roasting a sheep. Their massive forms were surrounded by a red line reflected from the fire. It reminded us of what might have happened in ancient times, when the first human hordes camped, miserable and shelterless, on an ungrateful earth not as yet subdued.

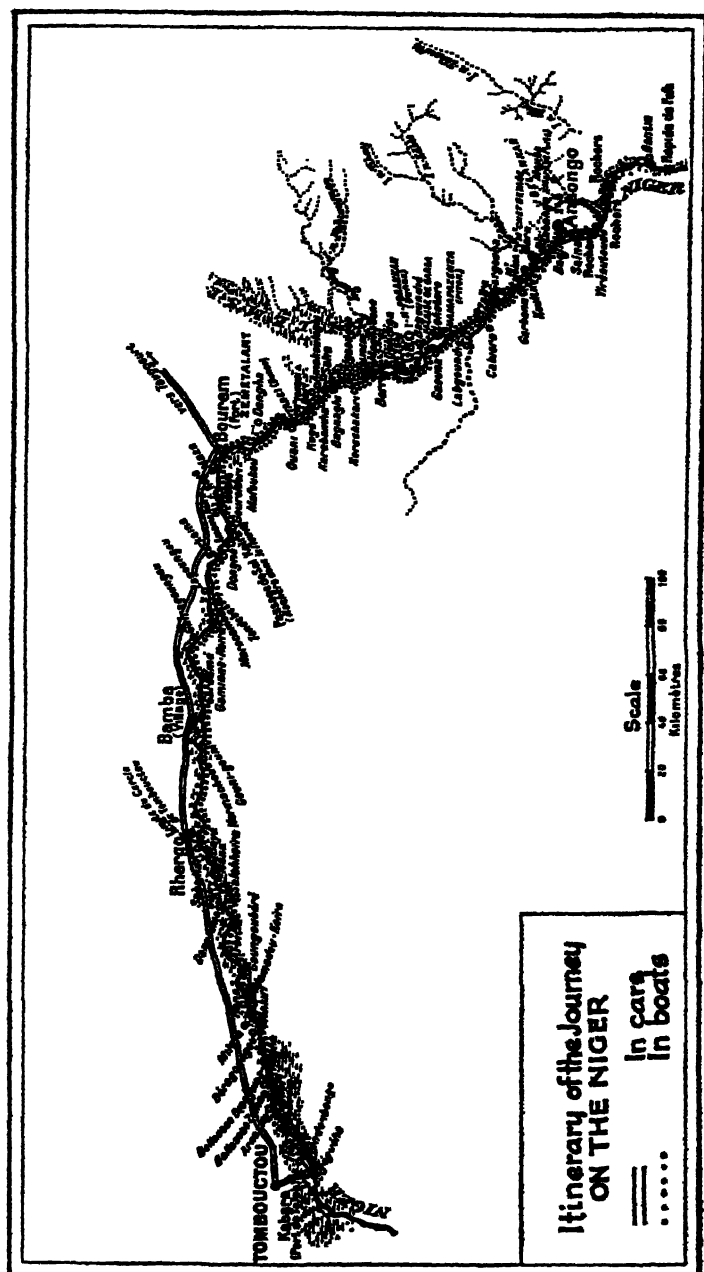
The clear laughter of the boys arose meanwhile from the barges.

January 25th.—We again ascended the dune to watch the sunrise.

It rose beyond the sea of waving grasses. At first it resembled a red cupola which slowly grew, then suddenly the incandescent disc detached itself from the ground and its rays were already so hot that the languid river appeared to steam at their touch.

We started. There was a strong wind, and the barges pitched and rolled like barques on the high seas.

About 9.30, two miles off, we suddenly saw, in the bend of the Niger, some big black masses half out of water. They were hippopotami. There were about ten of them; first a couple; then, farther off, a group of six; and finally a single one, very fat, 500 yards from the others. They could be clearly observed in field-glasses, so that we could follow their movements. They browsed on the water plants. We approached



Across the Sahara by Motor Car

slowly. The first, one of the biggest, who kept near the right bank, suddenly saw us and plunged before we had time to shoot. In jumping he displaced an enormous mass of water. There was no time to lose, as the others would soon see us in their turn. Though the distance was really too great, we fired, and the herd dispersed. But our bullets had scored some hits, for one of the animals did three complete turns.

We rested and dined on that spot, to ascertain if he was wounded. But we could not wait indefinitely, and at 2 p.m. we departed.

The great wind which prevailed and interfered with our progress also hindered us from shooting many of the birds which traversed the river.

In the evening, at 4 p.m., we shot at two enormous crocodiles at 400 yards. At a shot which took full effect one of the animals rose on the surface of the water, opening an enormous mouth lined with a livid mucous membrane, and then shutting it with a snap. Its formidable tail whipped the water convulsively and the monster disappeared in a whirl of blood, mire, and foam.

At nightfall the wind diminished. We glided along, sometimes amidst high grasses and sometimes along veritable fields of water-lilies of a milky whiteness, like those of the French rivers, but with great blooms of exquisite pink or sulphur-yellow which recalled the paintings of Claude Monet. We shot some egrets and woodpeckers sitting on bushes.

The sun was gradually setting. Its rays reddened the Niger and the back of Biga, a negro with enormous muscles and a flattened nose, the most fully developed type of our ancestral brute, the cave-man.

At Garbaï we were to have bought two sheep to reward our laptots. But the sheep were grazing too far away, and we could not wait for them.

We took in extra laptots, being anxious to navigate all through the night.

The women gathered round with a joyous tom-tom. One of the laptots looked angry. We asked him, through the interpreter, if it displeased him to go with us. He replied : " Not at all, but I am not pleased to see my wife among the first to dance."

Our boy Baba laughed at the discontent of the jealous negro, that fault being very rare among these good people.

We noticed that in this village the women seemed rather pleased to see their men go away.

The tom-tom was redoubled. The ladies seemed certainly determined to enjoy themselves at Garbaï that evening.

Night fell completely. The laptots rowed steadily. At Bamba four sheep will await them if they arrive before 8 a.m.

That sort of prize was the best way of stimulating the ardour of our crews when we wished to increase our speed or double a stage. But let no one hasten to accuse us of prodigality, for a fine Soudanese sheep costs only $7\frac{1}{2}$ francs.

BAMBA, *January 26th.*—At 7 a.m. we arrived at Bamba. The laptots smiled broadly, thinking of their four sheep, which they will kill and eat in a few minutes.

Bamba is gay, smiling, and clean, a charming little village on the great Niger.

Across the Sahara by Motor Car

On the square and on the river-bank we found friendly negroes and haughty Tuareg.

Bamba is really the negro village such as our childhood imagined it, with its palm-trees, sand-dunes, clear water, good blacks, neatly arranged hovels, small sheep, and avenues of delicate-leaved perkansonia, thorny acacias, and silk-cotton-trees.

We lunched with Captain Chenard, who received us with charming affability.

After tasting a cup of excellent coffee, we sent off some telegrams.

The postman of Bamba is an amiable negro, dressed in a white shirt and a black felt hat. The good fellow is under sentence of three years' imprisonment. He serves his sentence by managing the Bamba post office. A typical detail is that his post office has no till. Telegrams sent out are paid for at Timbuctoo or elsewhere.

De C  ris maintains that in this country some native officials and some punkah-wallahs are under sentence of imprisonment or even of death, waiting with calm resignation, or even perhaps indifference, for the good pleasure of the tribunal of Dakar, more than 1,200 miles away.

In this connection we may notice how regrettable it is that justice is not administered in those countries according to native laws, including immediate execution if called for. When the authority for condemnation arrives some months or years afterwards, the condemned men no longer understand it, and those who have stolen or have attempted murder have forgotten their own crime long ago.

At 4 p.m. we departed, in calm weather. Pretty

dunes bathed their feet of pink sand with graceful ease in the blue waters of the Niger.

Abdul Touré gave us some kola nuts. We asked him whether kola gave him strength to satisfy his wife. He replied : " No. Me eat four nut every day for have memory and not sleep in night. When me want please mouso, eat fat sheep, with much allspice."

The sun descended, red and splendid, upon the Niger and shed its prismatic fantasies upon the waters.

The wind subsided, and a great silence closed in upon us. Nothing was heard but the splash of the paddles, and thus we glided towards ancient and famous Gao.

January 27th.—During the night we halted at Eguedesh, in calm weather. The calm and serenity were complete but for the continual plaintive and haunting moans of a woman in childbirth.

In the morning all the younger and older black beauties of the village came to make a tom-tom. The oldest woman led them. The witches of Macbeth would have seemed like Venus compared with that hag whose breasts were flung in all directions like flabby leather.

The tom-tom went on with a devilish frenzy, to the great elation of our boys, who suddenly jumped from the barge to mingle in the dance. The women deployed for them their most voluptuous charms. We said to Baba : " We shall give you the oldest of them. She is the best-looking." He gave a terrible shout and fled.

We departed slowly, on a river which seemed dead

Across the Sahara by Motor Car

because there was not a breath of wind. We sat in the front of the barge on comfortable wicker chairs, our carbines and guns hung in front of us.

At half-past ten we saw through our field-glasses a crocodile asleep on the sand of an island. The birds got on its back without fear, and a sparrow, who certainly did not suffer from cold feet, even walked into its jaws ! We approached and resolved not to shoot till the last moment. We went forward in some excitement and approached to within 150 yards, to 100 yards. We still hesitated and the beast gave a terrific jump into the water and our shots rang out too late.

At eleven o'clock we saw two crocodiles and a crowd of ducks. One of them facing us was enormous and the other seen in profile was also very long. This time we did not want to shoot too late, so our shots went wide. Besides, the current, which was very strong, made the shooting very difficult.

We dined on board the *Boromo* in a bay which we called Crocodile Bay.

At 12.30, just as we were tasting the *hors d'œuvre*, a crocodile was seen by our watermen. We jumped off and fired. He was well hit and there was blood on the bank, but he had time to slide into the water, and we lost him again.

At 2.30 we shot some wild duck and killed several. The chief laptot took one of our little pirogues to fetch them. We remained on land some little time on a small island covered with violet and yellow flowers.

On the horizon we saw sand-dunes on the right bank of the Niger. The Sahara seems to have crossed the

river in order to get to the great green bush of Central Africa.

Our flotilla advanced slowly on the wide river. We no longer used the pole, but the paddle. Our laptots chanted their chant :

When your paddle is in your hands
You must paddle. The laptots are made for working, they must work.

This is repeated in falsetto on four notes for hours together.

The laptots of the *Tera* are called Biga, Amadou, Siré, and Yacouba.

Biga has a hole in the shoulder. Once when he was very young he was taken into slavery. In order that he should not escape, his master passed a rope through his shoulder. He has enormous muscles and a thick nose, but a good-natured smile. This monster is very attentive to us.

Yacouba is smaller. His eyes are intelligent, bright and good-tempered, and he wears a very small black beard.

Amadou has an enormous projecting navel. He is more thoughtful than the others and talks much less. What can he be thinking of? Probably of the sheep which he will eat to-night or to-morrow if he arrives punctually at the stage. He paddles conscientiously and steadily.

In the evening we shot several crocodiles and had the joy of killing two. At sunset we glided along towards Tagambé through the high grasses, and soon arrived there. The night was very black and the lazy moon did not rise until the morning.

Across the Sahara by Motor Car

When we had had dinner, the headman of the village brought nine fresh laptots, as well as eggs, fowls, butter and milk. He was a big man veiled like the Targui, and his name was Sicabar.

We started again in the night cradled by the monotonous chant of the laptots and the swish of the tall grasses.

January 28th.—Our barges stopped before sunrise at Salia Koirra. We were awakened by a more melodious tom-tom than we had heard before, and to our pleasant surprise the women were good-looking.

The headman of the village is in prison at Bamba. His son, who took his place, announced this to us as if his father had had some promotion or had gone to visit the captain commanding at Bamba.

We left about 8 a.m. At 9 a.m. we landed and ascended the high dunes. We shot several gazelles and some wart-hogs. The sand contained numerous tracks of animals, among which Abdul Touré and Ibrahim pointed out several footprints of lynx.

Our expedition took us to a very old cemetery belonging to the village on the other bank. The dead of that village cross the beautiful Niger, where they have lived many joyous days, for the last time to join their ancestors on the opposite bank.

The last graves dug were covered with thorn branches, so that the hyenas should not unearth corpses. This precaution is often useless, and we saw many human bones around the mounds.

Our barges awaited us near the cemetery. The Niger at this place begins to narrow, and soon we approached the rapids of Tossaye. The flotilla soon

passed near a great and strangely white cliff covered with birds, situated at the entrance of the gorge and stretching along the right bank. We had hardly passed that cliff when we saw two panthers about 100 yards away. We shot at sight, and wounded one.

The narrow, rapid and turbulent river was strewn with large black rocks among which great green trees were growing.

The scene was most picturesque. In the middle of the gorge the ruins of the ancient fort of Tossaye, situated on the right bank, were reflected in the seething water.

The landscape, which was somewhat severe, in spite of the sun and greenery, became more and more majestic. It is here, no doubt, that the great trans-African trains will pass later. Who knows whether some enormous palace for millionaires in search of an exotic background will replace the ruins of the fort? When one loves solitude for itself, even in its most desolate aspect, that thought is one on which one can hardly dwell without sadness.

We soon emerged from the gorge, and the river widened.

At 11.30 we killed a crocodile near the village of Aoua.

At noon we had hardly gone on board the *Boromo* and commenced our dinner, when a family of four crocodiles was seen. We hoped to approach them on land, and stopped the barges to go on an island with de Cérès and our two black guards.

We advanced slowly, holding our breath. The four crocodiles were only 100 yards away, but one of them had seen us. It was time to fire. Five musket

Across the Sahara by Motor Car

shots rang out and three crocodiles jumped into the river. The fourth, seriously wounded, remained motionless for some seconds, then twisted and walked slowly to join them. We hoped to secure it, and our laptots rushed forward regardless of the danger. It was too late, the crocodile was able to reach sufficient depth to be beyond our reach. In order to secure it, it would have been necessary to wait until it rose, but it was difficult to know the day and the hour, or whether it would be eaten by its brother crocodiles. On the sand we saw the traces of its blood, and we asked the headman of the village of Aoua to watch that spot and to send us the skin of the animal by a pirogue if it rose to the surface of the water.

We pushed forward slowly with the paddle, and saw another crocodile. We fired, and it got a bullet in the head. For a moment, it remained motionless, and then it turned and made for the water. We gave it another round, and the laptots rushed upon it and secured it, still struggling. Two men held its jaws. We stretched it on the grass, where it died.

A bullet had passed through its eyes and a portion of the skull. The vitality of these brutes is so great that it still had the strength to plunge. But for the presence of mind of the laptots, we should have lost it.

Their joy was great because we had promised them two sheep every time we killed a crocodile or a hippopotamus.

The river became very wide. Great grasses waved on the edges of the rice-fields and millet-fields, which were often under water and lay between high dunes.

We saw in the far distance the fort of Bourem, which

On the Niger

to us will always be the splendid point, the magic vision of another world, and it was with some emotion that we recalled our memorable telegram :

On January 4th, in the evening, we had the joy and pride to reach the Niger at the bend which it makes before the fort of Bourem.

Night had fallen when we landed at the fort.

We sent some telegrams. Our provisioning mechanics of the Niger were there, and we talked with them about their last rendezvous, Kidal-Bourem.

Adjutant Guidicelli endeavoured, as usual, to render us a thousand services. Our chief laptots cut up the crocodile and we kept some big slices to enjoy next day.

We started again at 10 a.m. with nine fresh laptots, intending to reach Gao, the splendid Gao of our dreams, as soon as possible.

January 29th.—About 9 a.m. our barges reached Kara Manga, and some women received us with tom-tom. An honest merchant of Bourem and his brother, two Fulahs dressed in splendid *boubous*, camped at night near us among the doum palms and small thorn-bushes.

At 9 a.m. we passed Bagnaghi. There were fewer birds in this region, but a little farther on we perceived some trumpet birds or crested cranes.

The weather was dull and the wind rising. Soon the dune of Koina arose on our left, the pink peak which our friend Félix Dubois saw one December evening on arriving on the bank of the Niger after traversing the Sahara.

Across the Sahara by Motor Car

A few more miles and we were at Gao, the black Memphis of the western French Nile. Gao is gracious and alive, a blue smile beside the Niger which that night, in the twilight, was the colour of crimson lake.

While the night was falling, we passed through the ancient capital towards the tomb of the Askia. The pyramid of *tob* armed with twisted African bushes where those great Songhaï chiefs rest, rises in barbaric majesty out of the middle of the huge cemetery.

On returning we dined at the bordj with Lieutenant Maury, commanding the territory of Gao, and Lieutenant de Kerviler, who will soon rejoin the post of Ménaka.

Lieutenant Maury is a young Saint-Cyrian, a man of fine appearance. For sixteen months he has been at Gao, and he has quickly adapted himself to the manners and customs of the difficult tribes he has to command.

January 30th.—We shall have to think of working out our programme of stages towards the north in order to warn our friends and those in charge of provisions.

We bend over the maps of the Sahara which had slept in our pouches for some weeks. They bring back to our memory the great solitude, the steppes of the Soudan, the Tanesrouft, the Hoggar, to the heart of which we will penetrate on our return journey, the Tidikelt, and the last vision, Algiers the white, then the sea . . . and the steamboat which will take us back to France.

We despatched our telegram, No. 17 :

André Citroën, Paris.

After receiving the last news of Estienne and the cars from Timbuctoo, we propose the following programme of return : Leave Bourem February 6th, pass Kidal the 8th—Taman Rasset and Hoggar about the 15th—In Salah about the 21st or 22nd—Inifel about the 26th—Wargla probably on the morning of March 1st—Touggourt about March 2nd. Castelnau, too tired in spite of his great physical endurance, could not accompany us on Niger. Have received a telegram from him saying that he is worse ; doctor forbids return by Sahara. If you insist on coming to In Salah, we hope you will have no untoward accident, and shall have great pleasure in finding you there. Have made on the Niger as far as Gao a trip full of interest. Cérès, instead of Castelnau, took some films. Good hunting of rare birds, hippopotami, crocodiles. Bringing home numerous trophies. Date of departure Estienne from Timbuctoo permits us to descend Niger as far as Ansongo to the beginning of the rapids. Please telegraph us your intentions to Bourem, where we will join our cars on February 2nd or 3rd.

In the evening we started about 8 p.m. for Ansongo, taking with us extra laptots for that night.

On the night of January 31st we were able to use sails, but what sails ! Our laptots used reed mats instead of sails. They did not know the most elementary rules of this mode of navigation. All night long there were sudden turns and fantastic swayings. Sometimes the barges arrived so suddenly on the banks that the shock made us fall out of our bunks. Our cameras and guns became unhooked and fell with risk of breakage. That was cheerful ! But our niggers were enchanted, and ready to carry on.

About 4 a.m. we landed on the right bank to the south of Gargouna. We went to hunt on land, and

Across the Sahara by Motor Car

shot hecatombs of gazelles, guinea-fowl and small game such as hare, ibex, and kingduck.

The bush was not so thick in that place. The undergrowth was sandy, with some clay and laterite.

At noon we stopped at Bara, where we saw very pretty plantations of tobacco and cotton, planted by the natives.

We shot some great birds of prey which were planing over the village. There was a tom-tom made by the negresses of Bara, who are tall, well-made, and good-looking, like bronze statues.

We started again along the Niger, which is very wide at this place. There was much wind and the river was in commotion. It was difficult to navigate along the banks. We did not shoot much game that day, but stayed in our barges and talked.

At 4 p.m. we halted and walked on land. It was very hot.

We embarked again, and soon reached Ansongo. A mass of green detached itself from the blue line of the river. The post seemed surrounded by palms and acacias. Night was coming as we approached.

A pretty garden with a terrace overhung a large staircase with its last steps bathed by the waters of the river. It was bordered by small columns surmounted by enormous elephant skulls white as marble. Lieutenant Girard, commanding the post, with his wife and his two little daughters, ran up to the river to receive us.

In the evening we dined in the bordj. During the meal, tame monkeys climbed on the backs of our chairs ; an oryteropus, a very rare animal living on ants, chased in the dining-room a small hyena



AT ANSONGO.

Facing p. 196.

with which it was very friendly, and birds flew about us.

The Ansongo post is a veritable Noah's ark. On that basis colonial life is surely full of charm. Happy are those who can thus enjoy the primitive character and rude poetry of past ages.

After dinner, Lieutenant Girard made the hyena drink from a feeding-bottle, while the monkeys, who were rather jealous, pulled faces.

The blonde little girls went to sleep. A negro took them with great care and laid them on reed mats in a corner. They continued their sleep among animals who passed close to them and sniffed them without ever touching them.

We left enchanted and touched by this unexpected evening passed in the lovely gorge of Central Africa so far from our civilisation. Before entering our barge we remained for a long time leaning over the balustrade of the terrace and gazing at the Niger. The elephant skulls stood out from the sombre green of the garden. The Niger before us looked like a sea and some rocks projected their black shadows over the river.

What is the date? We had to make an effort to remember—the 31st of January. How cold it must be in France! Here the night is a summer night, and perfumes of the African bush scent the warm air. In the Niger, still faintly blue in the darkness, the alligators come to the surface to breathe and to snap their immense jaws.

February 1st.—In the morning, Lieutenant Girard came for us, to show us his superb gardens, and let

Across the Sahara by Motor Car

us photograph the animals roaming at large ; monkeys, fishing birds, shy hyenas, giraffes, oryteropus, and the immense river tortoises, on the backs of which the little girls climbed, the gazelles, and finally, in cages, gorillas and wild cats of terrible ferocity.

Our luncheon was served by two very stylish negroes, Bakari Sika and Tairo Mega, on a sunny veranda in the midst of animals.

As yesterday, at dinner, we had an interesting conversation on the tribes of the district, and on animals and hunting.

In the evening we made a shooting expedition in light pirogues among the rocks in the middle of the river facing Ansongo.

February 2nd.—Ansongo is our last stage towards the Unknown. At 5 a.m., while it was still night, we commenced to paddle up the Niger. We did so with some regret, but time was pressing. Our comrades must be waiting for us at Bourem for the supreme and decisive test, that second crossing of the Sahara which we have resolved to undertake. Our trip on the Niger was an interlude, a period of rest. Our duty lies elsewhere. Its voice calls and we must reply to it without allowing ourselves to be diverted any longer by the softening influence of the river.

At 8 a.m. we landed at Tabango and shot partridges and various birds. We had to cross several gullies before we could embark.

About 11 a.m. we re-entered our barges, and at mid-day we passed Tabara without stopping. Tabara is a pretty village on a bank of yellow sand.

At 3.30 we landed at Bara and visited the village,



GUINEA FOWL.



TAOURA OF THE WHITE GOAT.

Facing p. 198.

which we found clean and well laid out on a small sandy island. We photographed the wife of the chief, a fine woman with an ample bosom, and in congratulating her husband we gave him a 5-franc piece in silver to show our satisfaction.

At 5.30 we stopped at Koultin to wait for hippopotami until nightfall. There was a grey twilight and a very hot evening. Our waiting was in vain, as the waters were probably too high and the animals which had been in the habit of coming to this place had, no doubt, moved elsewhere.

After dinner with Lieutenant Girard on board the *Boromo*, we separated, he going back to Ansongo, which he would reach next morning, and ourselves to Gao, twenty-four hours away.

We had embarked extra laptots at Bara and had changed them in the middle of the night in passing through Gargouna.

February 3rd.—We halted about 7 a.m. between Hoini and Hamafazenga. One of us landed on the bank with de Cérès, while the other, attacked by jungle fever, remained on board the *Tera*. The barges went on their way for us to rejoin them several miles down.

We shot some guinea-fowl, birds of all sorts, several bustards, an enormous eagle, and some small dark yellow birds which will augment our collection.

Our hunt took us a couple of miles inland. We crossed some deep ravines and finally arrived on a curious cliff with great yellow and violet stripes.

On going back to the river we found trails of

Across the Sahara by Motor Car

crocodiles on the sand. It was a pretty place, surrounded by doum palms.

The laptot Biga accompanied us. We were back on board. The weather was grey and close.

At 4.30 we landed again. We shot ducks and numerous birds of all sorts, as well as gazelles and some boars.

At 5 o'clock, on a bend of the Niger, the dune of Koina appeared in the hot mist ascending from the river. It was pink, like a globe of coral.

At 6 p.m. we were close to Gao, where we arrived without being seen by the riflemen's camp, where the women were cooking the evening meal.

With Lieutenants Maury and de Kerviler we awaited the barges, which soon arrived.

The sick man was very much exhausted. We brought him into our host's house and took his temperature. It was 104° F.

Some circumstances call for lies and even give them the character of good deeds. So with a good conscience, and under the mask of a smile, much out of harmony with our secret thoughts, we announced "101°" in a loud voice.

The night was hot and stifling, and haunted by sinister forebodings.

At midnight the thermometer showed 105° F. The sick man was very poorly.

A hot mist came up out of the river. The moon threw ghastly shades on the dunes of Koina. Some midges flew about, singing.

Black sentinels passed in front of the white elephant skulls which decorate the edges of the camp, like



HUNTING THE CAYMAN.

Facing p 200.

barbarous trophies. A heavy smell of acacias enveloped us.

The night-light flickered and threw great shadows on the walls. We were very anxious. In spite of cold bandages, the sick man was delirious.

De Cérís, the fiery de Cérís, nursed him calmly and patiently, like a hospital nurse. The thermometer showed $104\frac{1}{2}^{\circ}$ F.

February 4th.—The mist was still hot and heavy. Near the barges women were washing, with bosoms uncovered. One of them, of a pretty bronze colour, feeling under observation, turned coquette and adjusted her loincloth. In doing so, she showed a fine hip and body.

The weather cleared a little, and through the light mist the dune of Koina became visible, a green carpet at its feet, with a blue band. It was the river with its belt of reeds.

At 11 a.m. we consulted by telegram with Dr. Baus, of Timbuctoo. Then we had a conversation (by Morse) with Estienne, who arrived on the evening of the 3rd with all the cars at Bourem, in good order.

Going back to the house, the simple reading of the consultation seemed to do the sick man a great deal of good. In the afternoon he was mending, and we had no more fear of complications. The nightmare of a pernicious attack of bilious hematuria which had haunted us in the morning was banished, and we could resume the regular course of our occupations while the patient enjoyed a refreshing sleep.

Lieutenant Maury, commanding the district, invited us to attend a palaver in the great hall of the bordj.

Across the Sahara by Motor Car

The scene was a curious one. The attitude of the chiefs would tempt the brush of an artist as well as the pen of a psychologist. What thoughts are passing under the hermetic veil of the *liham*? These men without faces will always be an impressive riddle.

El Bashri, an old man of thin and ascetic aspect, sat on a mat, his chin on his knees, looking like a sphinx. Beside him Rhali, a young warrior, a fine and elegant figure, stood erect, also quite motionless. He had strangely soft eyes, almost feminine with their great depth, sometimes lighting up with a wild glance, which he veiled at once under his silky eyelids, so brown that they seemed tinted with khôl.

The Targui interpreter, El Rhazali Ag Mohamed, called Yanka, translated with some asperity the words of the Lieutenant. By the tone of his voice it appeared as if he wished to reassure his hearers and convince them in the manner of an advocate or even an orator. The old chief, El Bashri sometimes regarded him with disdain and distrust.

Rhali spoke in his turn. His voice was as caressing as his dark velvet eyes. He brought out his phrases in a slow, graceful, almost feline manner. His hands spoke, as well as his lips. His fingers, supple, delicate, brown and bony, appeared to be a necessary element of his speech :

"What do you want?" he murmured. "Let me return to my tent. I am not responsible. I am not the chief of my tribe."

"No, but you are one of its chief notables," said Yanka. "We have need of you, and you will stay."

"No, you are mistaken. I am not even that. I am nothing. I am a simple shepherd. Let me go."



GAO, THE MEMPHIS OF THE NIGER.



A HUNTING PARTY.

Facing p. 202.

What was the result of the interview? A mystery. The three chiefs rose suddenly, took their lances, swords, and bucklers, and went away without another word.

After their departure the interpreter told us some curious legends of the Songhaï countries.

(1) "The dune of Koina is the highest of the district; it was no higher than the others, but one day the Prophet passed on the banks of the Niger. The dune arose in order the better to see him."

(2) "Taguedou is a small dune to the east-south-east of Gao. Before the coming of the Armas, a Songhaï king named Akkes, a cruel and evil giant, was in the habit of eating the teeth of women. He died, and in order the better to see his detested corpse the women made with their own hands the dune bearing the name of Taguedou, which, in the evenings, becomes gilded."

At that time Gao was very large, extending from Forgo to Sokotoro, and in the east as far as Guinagober.

The old capital is greatly fallen from its legendary splendour. Yet the mosques with the barbaric minarets in the form of pylons which seem to be coarsely cut out of blocks of clay, have still an air of grandeur. When we went there in the evening the setting sun reddened their crenelated tops, and the murmur of ardent prayer was heard floating over them. The voices were purified in ascending to heaven, and lost nearly all human character. One might take them for a diffused plaint, an echo of another world. It was as if the phantoms of the kings of Gao, in obedience to a magic incantation, had suddenly emerged from their tombs.

Across the Sahara by Motor Car

Not far from the mosques is the market-place. There, life resumes its rights. The tethered camels grunt and ruminate on an immense rectangular square, encumbered with couffins, calabashes, and coarse archaic pottery strangely recalling Etruscan art.

There we also found numerous flocks of goats.

All the races of Africa jostle each other on that square. One sees haughty Tuareg, veiled with their *liham*s, Fulahs with sepulchral figures, Songhaïs who appear to have forgotten that they once were the masters, and black dealers from Senegal and Nigeria, sons of the old slave-dealers whose armed bands used to spread terror among the peaceable river populations of the Niger.

At 6 p.m., as night fell, we were all surprised to hear the snuffing of a hippopotamus 50 yards from our barge, which grew louder on the surface of the water.

The night was warm, and a heavy perfume of acacia descended on the river.

February 5th.—We paid another visit to the tomb of the Askias and the immense old cemetery of Gao, where countless generations rest.

On our return we passed through the pretty quarter of the prostitutes. We found it clean and well kept. The women live in reed huts.

We stopped at the dwelling of Taoura, known for her inseparable white goat. The people call her "Taoura of the White Goat," much as one said in Paris, during the Second Empire, "Marie Duplessis, la Dame aux Camélias."

Taoura is good-looking. One of us surprised her

yesterday evening washing her clothes in the river, quite naked. We had the caprice to see her again like that. She refused at first, but as her companions mocked her, she finally consented to our fancy and dropped her garments. We shall never forget the vision of that living bronze statue with the familiar white goat nestling up against it.

We then went to Ahmed Ahmed, a powerful marabout who had revolted against us several times. Is his recent submission sincere? When we arrived he was surrounded by numerous disciples. It may have been an illusion, but it seemed to us that our presence cast a chill over the assembly. Yet Ahmed Ahmed received us graciously and correctly.

Shortly afterwards, while we lunched, Dr. Pujol arrived from Hombori, across the river. He told us that on the other bank of the Niger two Tuareg tribes threaten to make war on each other.

In the first rays of the moon a female form approached the *Tera*. It was the Targui woman Shekou, a girl musician and poetess to whom one of us had given rendezvous for fun.

"When you asked me to come," she said, "I thought you wanted to marry me."

While she spoke, her hand slowly stroked a black wisp of her hair. Her tunic partly fell away, showing her brown skin. Her round firm bosom had the graceful curve of an antique vase.

She spoke of her tribe, which was noble among the Ouleminden. The moonlight bathed the landscape, and the beautiful daughter of the desert, a primitive goddess, stood out in a dark silhouette against the silver stream.

Across the Sahara by Motor Car

She departed before daybreak, not wishing that anyone should know of her coming. Shekou went up slowly towards the blossoming acacias. Suddenly she stopped, hesitated, and came back :

“ I am afraid,” she said, “ the laptots will see my image in the water even to-morrow, and will tell the black women.”

The luminous night closed on that vision of a dream. Shall we ever meet Shekou, the Targuia, again ?

February 6th.—At dawn the *Tera* and the *Boromo* left Gao. Lieutenant Maury accompanied us in his own barge, attended by his monkeys, a lynx he intended to present to the commander of the Bourem post, and his interpreter Yanka.

We had extra laptots on board. It was so cold in the night that one of them was seized with congestion and fell into the river. His comrades fished him out and laid him on the bridge of the *Tera*. There was no chanting that night. The silence was only broken by the sound of the paddles, mixed with the monotonous and continual moaning of the sick man.

The laptot died at dawn. We gave orders to land at the village of Bagnaghi, whose gilded huts were seen in the green bush.

The cold and rigid corpse was taken and deposited on the bank. A fire was lighted, over which the laptot was swung for several minutes. Koiria Mengal, a captive of the chief of Gao, was dead. The negroes threw a cloth over his remains and turned his face towards Mecca. They buried him before they left.

Next day, after we had hunted and killed some

deer, we had serious trouble to rejoin our barges, which, navigating along the dunes, had got far ahead. There was a torrid heat, and marching through the sand was very tiring. But we had a splendid view of the river, which looked like a torrent of liquid gold.

At Karabandia we wanted to change our extra laptots, but nobody came forward. At our approach the men had disappeared. Never mind, we shall take the women ! The latter did not seem at all displeased to follow us. As for our crew and our boys, their joy was delirious. We started, but a veritable squadron of pirogues soon appeared in our wake. It was the husbands, come to replace their wives. The latter returned to the village, to the great chagrin of the boys.

After passing Tondibi, night fell. Tondibi is a black plateau overhanging the river. In the last rays of the sun it assumed a deep red colour. The landscape was of tragic grandeur, as if completely covered with coagulated blood, in vivid contrast with the splendid expanse of water-lilies which we traversed slowly.

In the night laptots were taken on board at Ouani.

February 8th.—Having landed four miles south-east of Bourem, we found the site of a dead town. There were no ruins, for in time even the most solid houses have disappeared under the action of rain and sun. There was nothing but great heaps of pottery of all shapes and ages. Some look like real Roman pottery. These African Carthages, sleeping on the banks of the Niger, almost without a trace, are numerous.

At 9 a.m. we arrived at Bourem, and found Estienne

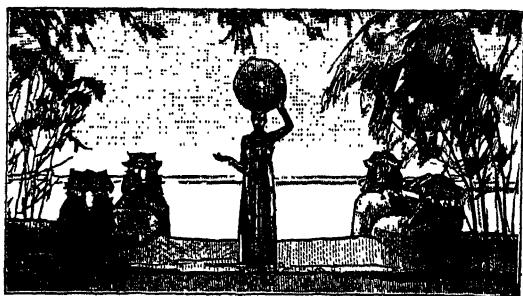
Across the Sahara by Motor Car

and the mechanics awaiting us. Flossie received us with joyous barking.

BOUREM, *February 9th.*—Our last evening on the Niger. Twilight is falling, and the great river on which we have passed so many memorable days seems on fire.

We said good-bye to our laptots, good-natured black giants with broad smiles, and to the *Tera* and *Boromo*, floating houses where we had felt the vivid emotions of the chase, and sometimes, for hours all too short, the ease of complete repose while we lay, comfortably stretched on deck chairs, gazing at the uninterrupted and ever-varying film of the river banks.

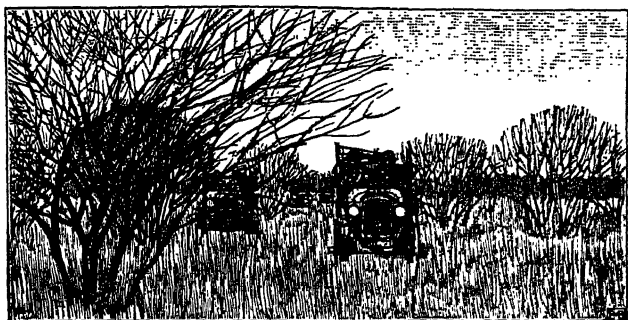
To-morrow we shall leave the Niger, and, passing through the plains of the Soudan, the Tanesrouft, and the Hoggar, we shall seek Algeria once more, and then France.



CHAPTER VIII

RETURN BY THE NEW SAHARA ROUTE—A HALT IN THE MIDDLE OF THE HOGGAR, THE LAND OF FEAR

Towards the North—Two New Passengers—A Game District—Landscapes—A New Halt at Kidal—Abideen—Gold Dust in the Steppe—The Southern Cross—Raishal-lala—The Tanesrouft once more—Death of "Boubou"—The Mountains of the Hoggar—Great Halt at Taman Rasset—At the Tombs of French Heroes—The Story of Dacine—A Thermal Station in the Sahara—A Literary Evening—Tuareg Poems—Praise of our African Soldiers—The Last Days of Father de Foucauld—The Blood of the Martyr—The Epic of General Laperrine—The Amzad—Adieu to the Hoggar—A New Route—Caterpillar Cars from the North are Announced—The Mira Beïda—The Memorable Meeting—Return to In Salah—Legends of the Sahara—Wargla Celebrates our Return—Epilogue.



BOUREM, *February 10th, 4 a.m.*—Our last preparations were made in the night. While the mechanics examined the cars to see that everything was in its place and nothing forgotten, we left the cars with their headlights illuminating the fort and the surrounding bush. We wished to see the Niger once more, the Niger of our desires which we had reached one evening last month in bright moonlight, and which we also were about to leave at night.

A vague luminosity stretched away to the east, and the grey streak of the river was well marked. We distinguished in the shade its blue tints, the green of the high grasses about it and the reddish bank reflected in its waters.

Returning to the cars, we plunged into the bush towards Tabankor and Kidal, saddened by the necessity of separating from our friend de C ris and the mechanics of the Niger provisioning party, who will go home via Guinea and Konakry with Castelnau, who is still ill at Timbuctoo.

The day gradually breaks and the headlights are extinguished. About 9 miles from Bourem we parted with Lieutenant Maury and Adjutant Guidicelli, whom we had taken with us on our cars. The horses

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were there, led by black spahis. We parted sadly, and perhaps they envied us a little because we should return to France before them.

The mission comprises two extra persons, a man and an animal. The man is our boy Soumgalo, whom we are taking with us. A strange stroke of destiny that this black Bambara will become a valet de chambre in Paris ! He is, of course, enchanted with the idea. The monkey is called Boubou ; he is a dog-faced monkey, born in the forest of Fouta Djallon. He has an amiable character, and Flossie and he, after some hesitation, have become the best friends in the world.

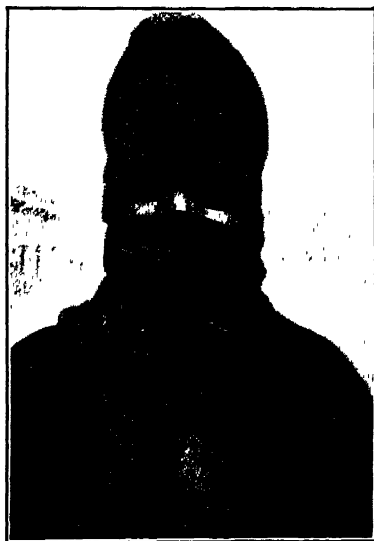
We stopped from 10 a.m. to 11 a.m. The track was northwards, and the terrain consisted of laterite. We killed several gazelles and strapped them to the backs of our cars.

At 45 miles from Bourem, the ground became more sandy and there was less laterite. The bush was thinning out. At the wells of Agamor we found numerous flocks herded by Berabishes. The trail now definitely pointed north. The weather was warm and agreeable, but we were worried by a following wind. We came upon a plateau of hard sand and saw a very beautiful mirage in the south-east, looking like a great river flowing in the midst of thorn-bushes. Such a mirage had already struck us on our way south, and we had taken it for the Niger.

36 miles.—Wells of In Tassit with brackish water. Six miles to the east is a flat hill. Before arriving at these wells we found at the bottom of a small wed numerous thick-leaved plants and fine doum palms. After In Tassit we ran along a sandy plateau.



RAISHALLALA.



THE AMENOKAL AKHAMOUK.

Facing p. 212.

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68 miles.—Two o'clock. The bush is becoming clearer.

80 miles.—Wells of Taberichat. Numerous Tuareg were watering their flocks. We stopped for three-quarters of an hour. We are continually shooting deer and antelopes, and all our cars are covered with them.

95 miles.—We arrived at Tabankor at 4 p.m. and found Sergeant Veilotte and his black riflemen.

February 11th.—We left Tabankor at 5 a.m., a little before sunrise. After proceeding 25 miles we came across a very curious cemetery. The Mahomedans have used for their graves a number of ancient polished stones which must have served formerly for much older tombs. By what patient artists of a forgotten race must these stones have been cut? This would be an interesting problem for the wisdom of archæologists.

130 miles from Bourem.—We halted from 8 a.m. to 9 a.m. in a country of bush and steppes. We shot numerous gazelles.

140 miles.—The ground is slightly undulating and to the west there is treeless territory, while to the east are great thorn-bushes. The trail is very good, and allows a speed of 15 or 16 miles an hour.

156 miles.—Some very wild places. We pass over great boulders surrounded by thorn-bushes. To the north-east we see two conical peaks which the trail will pass after many windings to avoid the large boulders.

186 miles.—It was 2.30 p.m., and we stopped for a light lunch and then advanced across a rather thin

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bush containing many erratic blocks ; sometimes we traversed small weds covered with succulent plants.

6 p.m., *Kidal*.—A few miles from Kidal we were met by Captain Guénard and his Adjutant galloping up on their camels, and we were very glad to see these kind friends again.

The day ended very hot, but a wind from the north-east fortunately tempered the excessive heat.

February 12th.—Numerous flocks came to drink in the wells in the valley. The weather was very hot.

Before lunch, Estienne made inquiries from a Moor, a son of the celebrated chief Abideen, our hereditary enemy. The young man is the only member of the family who has made his submission.

The scene took place in a shady room on the upper floor of the fort. Estienne questioned the young man ; he made few notes, but often studied the map and made sketches on a blank sheet of paper which the guide seemed to understand perfectly. On the floor, squatting on a reed mat, the Amenokal of the Adrar of the Iforas, whose name is Attaher, gazed with a soft and wistful expression upon the last pieces of silver which we were counting. We gave him ten and told him that we were happy to make a present to a chief who was a good friend of France. He took them delicately, caressing them with long brown fingers, and slipping them into his leather sack.

For the return journey, Estienne looks after the cooking. He is anxious that our cuisine should remain at the level of that which de Cérès directed with such competence on the *Boromo*. He also took an ample

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supply of fresh vegetables to ensure a varied diet even in the middle of the Tanesrouft.

At 3 p.m. we left Kidal. It was still very hot and everything was grey or lead-coloured, including the sky itself.

Captain Guénard accompanied us to the door of the bordj. We bade him farewell, promising him to be his faithful messengers and take messages to his relatives in France across the Sahara. After Kidal the country became very desert-like. We found ourselves in a monotonous region with no horizon.

6.15 p.m.—The land was a little more varied, the hills rather less rocky, and there were some stretches of steppes. The sun set in the west behind black mountains, in front of which the pretty post of Kidal became visible. Our cars advanced, raising a fine gold dust.

The wells of Tin Toudaten are guarded by the platoon of Lieutenant Rousseau. About a mile and a half in front of that well we met the Lieutenant coming towards us alone, his gun on his arm. He had heard our cars and seen our headlights.

We had a jolly dinner round a big fire not far from the tent where we should pass the night in our blankets. There was some talk of bands of robbers in the north, and Rousseau was anxious to go in pursuit of them. He had remained at the well to await us and to ensure our safety.

February 13th.—The camp was struck and we started at 7.30 a.m. The black camelry and the Chaamba accompanied us some distance. The Chaamba trotted and got in front of the mounted rifles. The latter tried to overtake them. There

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was a constant tumbling off of *sheshias* and even of riders. The riflemen came from the banks of the Niger, where the training of camels is less understood. Before their military service many of them had never been on the back of a camel. They are perfect soldiers, well disciplined, very brave, very devoted, but very indifferent camel riders.

Lieutenant Rousseau joined us with his N.C.O. and some twenty Chaamba. Before leaving him we gave him some maps, which pleased him much. The officers in this region are entirely without maps, and when they are stationed there for some time they are reduced to making their own sketch maps or trusting to guides.

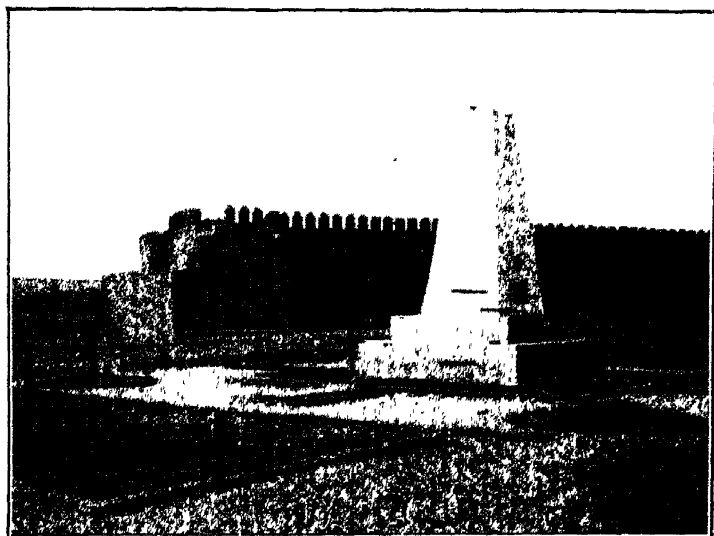
We pushed on through bush and stone, then an undulating hammada.

10 *p.m.*—We passed along the bed of a wadi, with thick grasses surrounded by black hillocks ; then the trail took a northerly direction and kept it for some time.

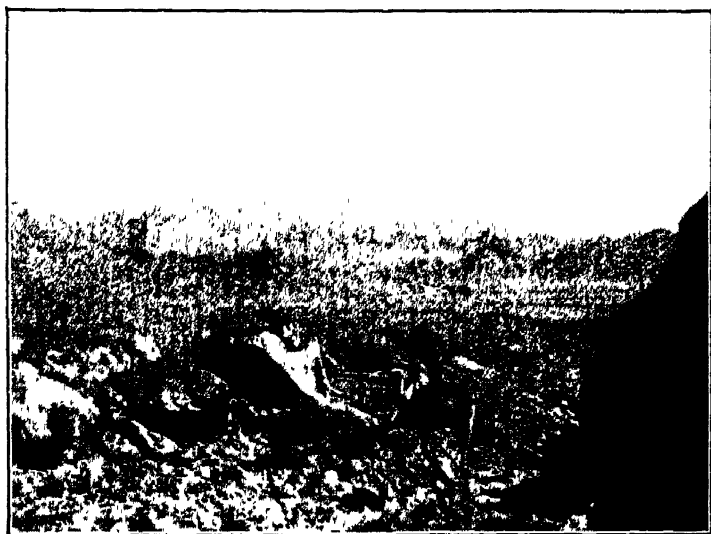
We stopped at 1.30, in a terrain of black *reg*. Some rollers were changed.

4.30 *p.m.*—We ascended a small defile between two low hills covered with a thin layer of sand. A herd of mufflons stood out clearly against the blue sky on the summit of one of the highest peaks. We reached the top of the defile and saw an immense steppe in front of us. In the north we caught sight of some mountains 20 or 30 miles off. On the east we saw sand-dunes.

We stopped as twilight fell. The weather was pleasant. We decided not to put up our tents and beds, but to sleep rolled in our blankets, under a ceiling of stars.



TOMBS OF GENERAL LAPERRINE AND FATHER DE FOUCAULD.



THE MOUNTAINS OF THE HOGGAR.

Facing p. 216.

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February 14th.—At 4 a.m. we started. The Southern Cross twinkled over the distant horizon. At that time of the year it rises every morning about 2.30.

6 a.m.—Undulating *reg.* Some absolutely black hills looked like those slack-heaps one sees in the Nord near pit-heads.

7.30 a.m.—Big antelopes passed in the west. We had no time to pursue them.

We followed the bed of a wadi overgrown with short grass. Its direction was northward, and mountains were visible to the north-east and north-west. We stopped for two hours to change rollers on the driving wheels. At Timbuctoo there was a lack of solid grease, and we used valvoline, which, at the high temperatures prevailing, melts very easily.

12.30.—We passed over big boulders. The passage was difficult, but we collected some fine examples of calamine.

Two Chaambas of Adjutant Commère's platoon awaited us at the wells of Tin Aramir. We were only about 15 miles from Tin Zowaten.

It was a region of round boulders. To avoid them, our trail had to wind in and out. Our general direction was north-east.

Tin Zowaten.—It was 3 p.m., and we had reached Algeria. We were received by Adjutant Commère and the Chaamba.

February 15th.—We remained all day at Tin Zowaten in order to lubricate all the rollers, the heat having completely melted the valvoline.

The tent of Raishallala was still there, under the tamarisk, at the foot of a great rock and half covered

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with sand. The graceful young woman who had appeared when we passed on January 1st, like the spirit of the New Year wishing us a prosperous journey, smiled at us as if we were old friends. Standing in front of her primitive leather dwelling, near a gigantic plant with round, pale and succulent leaves, she evoked a picturesque vision of very ancient times made familiar to us by the pictorial art of Cormon or the prehistoric romances of Rosny. Such must have been Erima, the flint-cutter's daughter, whose adventures at one time charmed our adolescence.

February 16th.—We left Tin Zowaten a little before daybreak and plunged into the Tanesrouft. Our general direction was north and north-east.

226 miles from Kidal.—We have left the mountain range of In Tedaini behind us. They are blue on the horizon, and fade away as we advance over a shrimp-coloured sand to which the slightly clouded sky gives the hue of pastel.

We stopped to take some yards of cinematograph views. Unfortunately the film will not register the magic of colour which gives its charm to the surrounding landscape.

At the end of our first stage on the Tanesrouft a meal, prepared by a master hand, is partaken of in the best of humour. A tasty repast, carefully prepared, is placed by Estienne on the tent carpet which serves us as a table.

The Tanesrouft has no cause to envy the *Boromo*.

February 17th.—We are entering the region where we encountered that terrible sand-storm on the outward

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journey. To-day the atmosphere is calm and clear. There is a scorching heat, unrelieved by a breath of wind.

Noon.—Boubou, our monkey, a little tired since Kidal, is growing more and more dejected. In spite of the heat he shivers under his blanket. We give him some coffee, but the sand and the jolting of the car tire him out. Poor Boubou, he is missing the banks of the Niger and the beautiful green trees he loved to climb !

It was a hard and exhausting day, with the wind following us nearly all the time, blowing sand upon us. The heat of the motors became insupportable. It was too hot to continue our journey. We halted from 1.30 to 5.30 p.m. and changed several rollers. We were about 150 miles from Taman Rasset.

Boubou was dying. His state grew worse every minute, and it was clear that he would not survive the night. The agony of a monkey so closely resembles that of a human being that it has a weird effect. It is a moving parody, with something terrible about it. The abnormal genius of some Spanish painter might have found inspiration in it. Shivering with fever under its covering, the poor animal moaned feebly with the voice of an infant. We sat up with it. Its eyes were closed, but from time to time it raised a drooping lid and gazed at us profoundly, humanly, as if reproaching us for having taken it away from its native country. No doubt it accused us of causing its death.

Flossie came close to the poor moaning thing, in which she had some difficulty in recognising the lively animal of which she had made a friend. Boubou

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had the strength to stretch out his fleshless hand and caress the motionless head of our little mascot until the last. Thus he died.

We buried him at dawn. Boubou, the monkey of Fouta Jallon, now rests at the foot of a black mountain in the great eternally arid and silent Tanesrouft.

11.30 *p.m.*—We were all tired and had to stop. Our drivers almost went to sleep at their wheels. There was not a splinter of wood. We cooked and warmed ourselves with the brazing lamps.

February 18th.—This is the time of the year when the greatest differences of temperature between day and night are registered in the Sahara, and particularly in the Tanesrouft. The days are scorching and the nights icy. That was the condition we experienced. When we started at 4.30 it was exceedingly cold. Our route was difficult to make out, the tracks of our southward-bound cars having disappeared.

We stopped at 8.30 a.m. The cold of the night was already followed by a heat as of a furnace. The wind being always from behind and the heat melting all the valvoline of the rollers, we decided to await the evening before starting again. The rollers were newly greased. At 3 *p.m.*, when we started afresh, it was still very hot.

4 *p.m.*—We saw in front of us the first mountains of the Hoggar. The sun was setting rapidly. Some Tuareg camelmen, subject to the Amenokal Akhamouk, came to meet us. They had been awaiting us for several days at the wells of Silet.

We passed over a uniformly black terrain where our cars traced great white streaks and raised a very

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fine dust. In the fine dust-cloud floating in the still air our cars looked like winged genii entering the Hoggar mountains.

It was nearly dark when we reached the first palm trees of Silet. We were glad because the Tanesrouf had been rapidly crossed for the second time.

In order to avoid the afternoon heat and the following wind we decided to start again in the night, and we left Silet at 9 p.m.

The passage of the Wed Abalessa is always difficult. There are steps to descend and great boulders to cross in defiance of all the laws of equilibrium. The route seemed interminable, and the night seemed as if it would never end. At 2 a.m. we saw the Southern Cross rise on the horizon.

February 19th.—At last we reached Tit. The Tuareg, seeing our headlights from afar, lighted big fires. While some of our mechanics, those who were most weary, slept in their blankets, we sat beside them and talked. It was very cold. The difference of temperature between the afternoons and the nights is most trying.

About 8 a.m. we were among the mountains, on the way to Tamàn Rasset. It was no longer the great heat of the Soudan steppes or the Tanesrouf. A fresh and vivifying air blew through us. We were at a considerable height. At 9 a.m. we must have been 5,000 feet above sea-level.

We had some difficult passages. Sometimes the trail was non-existent, the rare rains of the Hoggar having hollowed out the declivities and washed out the beds of the wad.

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1 p.m.—We arrived at Taman Rasset, the administrative centre of the Hoggar, where we barely touched on our outward trip. Our intention was to stay there for some time in order to get into closer touch with the Tuareg population. We also wished to perform the pious duty of visiting the tombs of Father de Foucauld and General Laperrine.

It was at Taman Rasset that Father de Foucauld was murdered on December 1, 1916. It was near Anerberakka, 125 miles east-south-east of Tin Zowaten, on the black rim of the lugubrious Tanesrouft, that General Laperrine, seriously wounded in the chest by an aeroplane mishap, ended his brilliant career on March 5, 1920. His body was brought here for burial under the folds of the Tricolour, in the land he loved so well.

Thus, by a curious whim of destiny, after having shared in their lives of double apostolate the same enthusiasms and hopes, the same ardent self-denial and sacrifice, these two perfect friends now rest side by side, and the Hoggar, by the presence of their tombs, has become the real moral centre of the French Sahara, one might say its Palladium and its Pantheon.

We were received by Lieutenant Vella, Resident of the Hoggar, and by Dr. Olufsen, chief of the Danish mission which we had encountered on December 19th near Inifel. The caravan of Dr. Olufsen had arrived several days before at Taman Rasset. While it had made its slow progress across the waterless solitudes of Tademait towards its distant and difficult goal, we, with our valiant cars, had had time to cross over to Timbuctoo and return, after covering 630 miles along the Niger.

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This comparison is undoubtedly the best proof of the value of caterpillar cars in the matter of Saharian exploration.

The bordj had a festive air. A delegation of the Tuareg nobles of the Hoggar had come to meet us. They were fine men, proudly draped in their blue or white veils. With their bucklers on the left arm, their cross swords at their belts, and their lances in their right arms, they recalled to some extent our proud barons of the Middle Ages departing for some distant expedition. But the *lithams* which covered their faces gave them an enigmatic and rather disturbing aspect resembling those Numidian warriors under Jugurtha of which Sallustius has preserved for us the memory. There were also numerous Tuareg women, some of them young and pretty, and all with a grand air. We already knew several of them : Dacine, the poetess ; Smana, a splendid creature ; Icouten, and Rhari. All seemed pleased to see us again, and gave us a joyous welcome.

Nobody who had not gone beyond the northern part of the Sahara could have realised the freedom of their carriage and speech. There is a real gulf between the Arab woman and the Targui woman. They belong to two utterly different civilisations which never mingled despite the link of a common religion.

The Arab woman, even the Bedouin, bears the burden of an atavism of submission and immemorial constraint. The bearing of the Targuia, her speech and laughter, the ease of her gestures, even the boldness with which she looks at men, give evidence, on the other hand, of a liberty and independence

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which must be attributed essentially to the matriarchate, the social basis of primitive humanity to which the great veiled nomads of the Southern Sahara have remained obstinately faithful.

From this point of view nothing could be more eloquent than the story of Dacine as told us on the terrace of the bordj by the interpreter Belaïd, the *Brantome* of the Hoggar :

"Dacine," he told us, "is of medium height. Although she is now fifty, she is still a beautiful woman. Her eyes are fine, her teeth regular, and her face oval. She has a pretty voice. She is very intelligent and plays the amzad well.

"As soon as she became marriageable the men began to attend her Ahaal. They covered hundreds of miles on their camels to see her and hear her. All the noble young men desired her in marriage. Her parents married her, against her will, to Bouhan Ag Kebbi. She left Bouhan on the very day of her marriage. From that time Dacine presided at musical and poetical evenings, as if she were still a girl, and all the nobles came regularly. Among these were Souri Ag Shikat and Aftan.

"One night Souri Ag Shikat arrived at the Ahaal before Aftan. Shortly afterwards, Aftan arrived on his white mehari. Souri killed that mehari the moment Aftan had dismounted, with a rifle shot. It was a grave insult, but, repressing his anger to show his indifference and contempt, Aftan laughed. Dacine brought her Ahaal to an end, on the pretext of being tired, and everybody left, fearing the consequences of the event.

"Next day, at the usual hour of the Ahaal, Aftan

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came as if nothing out of the way had happened the night before. Dacine had already saddled her own white mehari :

“ ‘ I give it to you,’ she said to him, ‘ instead of your own and for your good conduct, and I declare that none but you shall be my husband.’ ”

“ On hearing these words, the other suitors for the hand of Dacine were much annoyed. They opposed the marriage. It required a full reunion of all the Hoggar to judge the matter and prevent blood from flowing.

“ Dacine had with Aftan a son who died for France in the Senoussi war in 1917, in the Aïr country. Her husband has been dead for three years. She lives with her brother Akhamouk.”

In spite of her age, many men would still gladly marry her, but she prefers to remain a widow.

In 1910, when Moussa Ag Amastane went to France, it was she who ruled the Hoggar until his return.

As soon as we had placed our cars in the inner yard of the bordj we made our way to the graves of Father de Foucauld and General Laperrine. The grave of Father de Foucauld is of an impressive simplicity. It is even more impressive if we remember that it was General Laperrine himself who erected on the mound of his friend the cross of wood on which the simple words are engraved :

Vicomte Charles de Foucauld.

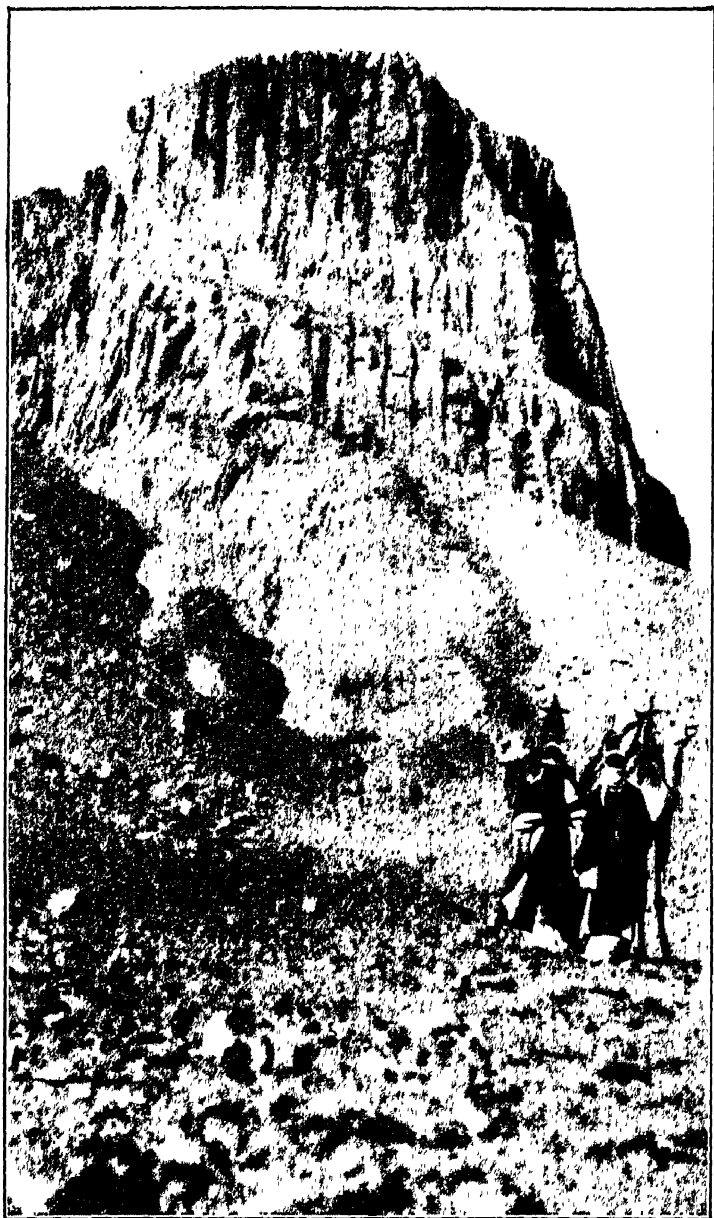
A few yards away there is a cenotaph in the shape of a truncated pyramid, raised by the Comité Colonial

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Français to the memory of the two great Saharians. We found the two medallions : that of Laperrine immortalising in bronze the fine head of the soldier who had followed the noblest ideal until his death, the greatness of his country ; and that of the ex-cavalry officer turned monk, with his ascetic face, deep-set eyes, and thin neck on which the muscles are stretched like cords in the opening of his coarse habit, which recalls a Christ as painted by Quentin Matsys.

In the evening we ascended to the terrace of the bordj. The outlook was majestic in the fading light of day. To the south there stretched the Tilinidi and the immense bare plateau of Asseguenet which separates us from the Tanesrouft. At this hour they are a delicate mauve fading insensibly into the far horizon. To the east the abrupt cliffs of Adrian rise suddenly, very dark, against the sky of red copper glaring in all the ardour of sunset. In contrast with them, the craggy tops of Tahaburt are luminous and diapered with tones of opal and mother-of-pearl. At the foot of this granite wall there runs, we are told, a sulphur spring from which the inhabitants of the region expect the cure of their ills. Who knows but that in this place an elegant thermal spa will soon arise, served by great trans-African expanses ? But yesterday this idea might have seemed chimerical, but to-day the success of our raid makes it appear quite realisable.

If that happened, what would become of the Tuareg ? Must we fear for them a fate like that of the Indians of Colorado, decimated or reduced to the lowest condition by " progress " to which they were not adapted ?



THE CLIFFS OF ADRIAN.

Facing p. 226.

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One cannot contemplate that possibility without sadness.

To the north, the Illiman Peak raises its summit to 10,000 feet. To-night it is of a blue colour fringed with gold, like a fairy's head-dress.

Viewed from this terrace, the panorama of the Hoggar is truly impressive.

Smana came up with us. Her silhouette, with its pure lines, stands out in black against the red horizon.

Near us, at the foot of the bordj, some lights shine out. It is Abatoul, the village in the valley, the huts and tents of which are strewn among the tamarisks. Hadeb, the village on the hill, also illuminates among its black rocks.

Dacine had informed us that an Ahaal would be given in our honour in the evening. After dinner we attended it.

The Ahaal is an assembly of music, literature, and gallantry constituting one of the most original manifestations of Tuareg life. Some travellers have fittingly compared it with the *cours d'amour* of our own Middle Ages. Like the latter, the Ahaal is organised by the women. At the *cours d'amour*, the *gentes demoiselles* played the theorb and the lute. Here the maidens delicately twang the amzad, a sort of primitive violin with notes of a rather shrill but crystalline character, which harmonise perfectly with the sensuous background of blue night shimmering with stars.

At the *cours d'amour* the "queens of good speech and of learned knowledge" recited roundels and ballads. Their counterparts of the desert also chant poems of their own composition. At the "courts of love" the cavaliers loved to recite their exploits.

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The young men of the noble tribe of the Hoggar are not behindhand. They also rival each other in witty sayings and gallant proposals to the complaisant beauties who, if we are to believe the *chronique scandaleuse*, permit the minor intimacies at which the *demi-vierges* of M. Marcel Prevost are experts.

The reunion of that evening took place at the foot of the valley, under a great tamarisk casting sharp black shadows on the sand flooded by moonlight. When we arrived, the assembly was already numerous round a crackling fire. The women, almost all young, dressed in long well-draped veils, and covered with heavy barbarous ornaments which made them look like idols, were seated in a circle. Behind them were the young men, some of whom had travelled far. Their tethered camels ruminated and snorted in the shadow.

The poetic session was begun with a poem once composed by the Amenokal Moussa Ag Amastane himself in honour of Dacine. It was recited in a pure, clear and well-modulated voice by quite a young girl. According to custom, the entire assembly joined in the end of each verse in a humming chorus.

Here is the poem, as translated to us by the interpreter Belaïd :

Dacine is the Moon ;
Her neck outshines the neck of a colt
Tethered in a field of oats or wheat in April.
God has made her full of harmony and grace ;
She is admired by all and loved by all.
No woman can make even the poorest marriage
So long as Dacine is free.

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She anoints herself with indigo and yellow ochre. She has beautiful colours.

God has given her that of which to be proud. She walks with her head high.

There are among the men those who do not please her and whom she repels ;

This does not trouble her peace—she has many other admirers

Her uncle Akhamouk is oppressed with trouble

Because so many men ask her in marriage.

She is free and gracious. She plays the violin,

And she sings pleasingly.

I should give in alms the people and the herds who go up into the mountains,

And all the pasturage which fattens camels and goats

From Gougoueran hither, and as far as Bornou,

And from Arar to Afestou

If thou, Dacine, dwelt in my heart as the sun among the stars.

I swear to thee by the holy books—may I be punished if I lie !—

That all I see in thee pleases me.

Whoever comes from Dacine, his neck shakes,¹

There is no more blood in his veins, nay, not a drop.

As for me, she no longer turns her head towards me ;

She pays no heed to me.

Dacine smiled, pleased and flattered. She enjoyed her popularity, no doubt, like a savoury dish, unless, perhaps, the memory of her love episodes awakened a sweet and secret emotion in her heart.

The delicate notes of the amzad now arose in the night. The melody developed on a very simple theme, with an extraordinary wealth of variations. This music defies analysis. All we can say is that it captivated our souls and bodies with the intensity of a magic enchantment. It obeys laws of harmony very different from those to which we are accustomed and

¹ An allusion to a tired camel.

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includes dissonances which would, no doubt, provoke smiles among our melodomaniacs. Would they smile if they heard what we did, at the bottom of a Saharian valley, by the light of a fire shining on an assembly of persons recalling the fabulous times when the first human beings essayed the first joys of rhythm ?

Alternately with the savage and haunting melodies of the amzad, poems of great charm were recited that night in our honour. We were able to preserve some of these, which are given below.

The first, noted down by Lieutenant Brunet, calls for some words of comment.

Towards 1890 a Hoggar *rezzi* went to pillage in the neighbourhood of N'chaïa, in the Erg Edeyen, 150 miles south-east of Rhamades. Moussa Ag Amastane, then twenty-two years of age, was one of the party. Having separated from his companions on the return journey for the purpose of hunting, he lost his way and wandered about among the dunes for thirteen days without finding a drop of water. On the thirteenth day, almost dead with thirst, he at last reached the shallow well of Takket, where he was able to slake his thirst. An old woman of the Isse-quamarels, coming upon him next morning to water her goats, nursed him and procured him a camel and provisions which enabled him to return to the Hoggar.

In the following lines Moussa describes his adventure to a woman of the tribe of the Taïtoks, named Amena Oult Wan Killa :

When that moment came, O Amena !
We tethered our camels near Rhamades.
I was far from thee, I was near N'chaïa,



AN EXPEDITION INTO THE HOGGAR MOUNTAINS.

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In the Shiatti. Like Barka,¹
I passed thirteen long days
Lost, buried in the dunes, rolling on the ground and believing
death near.
But I had not finished my destined span of life.
I was between life and death ;
Death was near ;
And my heart said : I love none but Amena.

The few poems which follow are now published
for the first time :

I. PROUD WOMEN

The woman and I, we shall not stretch our necks towards the
same branch,²
Lest she regard me disdainfully over her shoulder.
She is richly clad ; I am hardly covered.
By God, were she like a wooden bowl full of camel's milk,
The moment she were unkind, I should not touch it.

II. THE VIOLIN

I humbly adore the acts of the most High,
Who has given to the fiddle what is better than a soul,
So that, when it plays, the men are silent,
And their hands cover their lithams to hide their emotion.
The troubles of love were pushing me into the tomb,
But thanks to the fiddle, oh Son of Aïcloum !
God has given me back my life.

III. SADNESS OF A WOMAN WHOSE FRIEND DID NOT COME TO THE AHAAL

I turned my soul to the soul of my fiddle
When a care like a thousand cares fell upon me :
The man with the white camel,
They say he passes the night far from her for whom he is the
All of Love.

¹ The hero of a cycle of heroic legends.

² An allusion to camels browsing on gum-trees and tamarisks.

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IV. IN PRAISE OF A MEHARI

Instead of wings, I have my mehari.
Praise to God the Mighty One,
Who gave me my mehari, brown with white spots,
To carry me where love calls.

V. AN ELEGY OF LOVE

The heart thou lovest and which loves thee not,
Whatever thou do to strain towards him, he flieth.
A sad torment for a thing it were better not to ponder.
But if two hearts meet, it is heaven :
It is better than all friends ;
It is better than the whole world.

VI. HOW TO WIN THE LOVE OF WOMEN

What wins the love of a woman, is not to sit long beside her,
A visible proof of adoration,
Nor to give her a free rein to please her ;
It is to straighten thy neck more than she straightens hers,
And to show a pride superior to her disdain.

VII. A PRAYER

Oh great God ! I raise my hands to Thee,
And pray a hundred thousand prayers.
Oh great God ! I ask thee for three gifts :
The love of maidens, valour in battle, and pardon on the day
of resurrection.

VIII. TO THE DEAD

Oh my cousin, my beloved one !
Once I thought that nothing would ever part us.
But thy companions have come back, saying thou art dead far
away.

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I ascend the hillock where my grave will be dug.
Under a heap of stones bury my heart.
I perceive thy scent between my breasts,
It burns my bones !

IX. THE CHOICE OF A HUSBAND

When Kashouni was grown up,
How many women, I say, were disdained, not knowing why !
How many she-camels tired to visit her !
How many died by the sword for her sake !
How many grand personages came in embassy
To her father, to ask her in marriage !
But their supplications are vain ; her mother, wise Enjisha,
 sends them away.
She prefers, as a son-in-law, a young man of brilliant deeds.

X. A COMPARISON

I gazed at the Morning Star in the sky,
And thought in my soul of Tihit.
Never have I seen lashes on the border of eyelids,
Nor eyebrows like those of Tihit.
Her skin is like silk, her perfume like the perfume of musk.

XI. NOCTURNE

Last night we tethered our camels
Under the walls of the village.
We made a shelter with our garments.
Suddenly I heard an air of music,
Played by beautiful maidens who held their fiddles on their
 knees.

XII. A VOW

Nana, and her mehari, and her ornamented saddle,
And the whiteness of her mehari,
They are like the angel in the sky,
The Prophet amidst his people ;

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Like the moon in the heavens.
I ask of God Himself,
Of Him who made her with His own hands,
That He may inscribe me among the things which belong
to her.

XIII. ATTACHMENT

Rakhma Oult Fendou, what she does, I do.
If she fly to Orion, I go there.
If she return to earth, I am there.
If she plunge into the uttermost desert, I have my mehari to
join her there.

XIV. THE FAIREST

Koukaa sits among the women
Like a vine plant amidst ethels.
Koukaa sits among the women
Like a date-palm among the iraks.
Koukaa sits among the women
Like a mehari of Iguedalem among the meharis.
Koukaa sits among the women
Like a buckler of Tarma among the bucklers.
Koukaa sits among the women
Like a tunic of Ghati among other tunics.
Koukaa sits among the women
Like a javelin among lances fixed in the ground.

As we see from these specimens, the poetry of the Tuareg deals chiefly with love and gallantry. But they also compose fine warlike poems. Among the latter, some celebrate the exploits of our officers of the Saharian units, such as the following piece written by Sidi Ag Shedda Ihedanaren in praise of Lieutenant Vella :

None go to Assakao but men of courage.
Lieutenant Vella has killed hundreds of men among the enemies.

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He defeated Sultan Ahmoud, whose thoughts were but of women expert on the fiddle.

He pushed them to the foot of the mountain, where they died.

Lieutenant Vella is a man to be praised for his bearing.

Honour blossoms forth in the land where he commands.

His bravery is known to the French and to the Imouhars.

All the women admire him.

His memory will never be forgotten among the women who play the amzad.

The influence of Lieutenant Vella on the Hoggar people is due to the way in which he fought them while using their own tactics. Let us add that at the affair of Assakao the plucky officer was not afraid to go and find among the flying bullets a noble chief, mortally wounded, who was about to be taken away by the enemy, and carry him back on his shoulders. It was an act for which the Hoggar people will always be grateful.

France must not forget that her immense colonial empire contains a handful of such men of action and men of heart who ceaselessly pursue without failure or respite their arduous task of civilisation. We may compare them to the ancient heroes, the pioneers of the bush and the desert. Their life is a magnificent epic in which honour, self-denial, and valour perpetually attain their highest expression. We could wish that they would find some day their Homer. It is in any case desirable that the mother-country should pay more attention to the obscure work of these officers, non-commissioned officers and troopers among whom, in the hard school of colonial initiative, the soldier is nearly always also an administrator and a diplomatist. It is owing to their services that we see the progressive

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extension, like a ray of light over the vast world, of what we should wish our children to know as the *Pax Gallica*.

February 20th.—We went with Lieutenants Vella and Bergougroux to visit the old house of Father de Foucauld on the other side of Taman Rasset. It is a sort of narrow tunnel containing a chapel and a monastic cell. Fifty yards farther there was a small oratory where the anchorite loved to go to pray and meditate.

Much has already been written on the death of Father de Foucauld. We have no intention to repeat the well-known story, but some details which were given us on the spot may allow us to raise the corner of the veil which still hides the mystery of that tragic event. Why was Father de Foucauld murdered? The influence of Senoussi propaganda seems incontestable, and behind that propaganda we may suspect Constantinople and Berlin. Our enemies were then dreaming of a holy war and were endeavouring to raise the whole of Islam against us. The personality of Father de Foucauld, whose influence on the veiled tribes of the great South was so great, threatened to check that Machiavellian project. He therefore had to die.

Yet Father de Foucauld might have remained untouched if he had not himself towards the end of his life made some mistakes, mistakes which did not lower the nobility of his character or the splendid qualities of his great heart. On the contrary, it was in order to conform completely to the Christian ideal, the ideal of equality which seeks to raise the social

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status of the humble and the downtrodden, that he always and everywhere made himself the champion and the mouthpiece of the Imrads or servile tribes against the demands and the domination of the nobles.

Exercised in the middle of the Sahara to the detriment of immemorial customs and against the essential laws of a veritable feudal society, that sort of evangelic socialism could not fail to raise secret resentments against him.

If only the Imrads had shown themselves worthy of the interest he took in them all his life ! But one boils with indignation at the thought that he was betrayed and delivered up by one of them. The noble Hoggar warriors would not have acted thus.

Why did Father de Foucauld change his abode ? Why did he give up the house which we have just visited ? What had he heard ? That is what we shall probably never know.

Whatever it was, in 1915 Father de Foucauld moved into a veritable fort which he had built and where he had stored sufficient arms, food, and munitions to sustain a long siege.

He had, no doubt, constructed this citadel with the intention of sheltering the poor folk of the village. But all those precautions must have given umbrage to the Amenokal himself and must have aroused the cupidity of the Tuareg, whose instinct of rapine and pillage is hardly yet extinct. Hence the drama of December 1, 1916, was inevitable.

We need hardly recall the circumstances : how the traitor knocked at the priest's door and said : " Open, Father, it is the courier " ; the victim opening unsuspectingly ; how he was seized and bound ;

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the fine attitude of serenity and silence with which he met, until the last minute, the violence, threats, and oburgations of his butchers ; his last prayer and the fatal shot.

Paul, the priest's faithful servant, who nearly shared his cruel fate, reconstructed the tragic scene for us on the spot. Lifting up a stone on the place where his master had rendered his beautiful soul to God, he showed us a brown stain in which we recognised, with an emotion which may be easily understood, the mark left on the ground by the blood of the martyr.

The death of Father de Foucauld has been told by M. René Bazin on the basis of official reports and the first deposition of the negro Paul. The account given by the sympathetic academician is rigorously true. Paul adds but a single detail concerning the pillage of the bordj by saying that he himself closed its door but that the assassins came back several days afterwards intending to revisit it. He showed us, round the lock, numerous marks of sabre and lance thrusts.

Father de Foucauld's bordj still rises proudly over Taman Rasset. Its line of battlements is surmounted by a great cross of wood which the saintly priest erected himself. Only the massive structure of the chapel has collapsed. It is said that when that happened several Tuareg were caught and remained buried under the building, and the survivors said : " Were we not wise to prefer the leathern tents of our ancestors to the houses of the Roumis ? "

The memory of Father de Foucauld cannot be separated from that of General Laperrine. We were speaking of these two great departed as we re-entered the bordj.

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Our host, Lieutenant Vella, showed us a touching relic, the képi of the General which Bernard and Vaslin, his two companions, had placed on his grave in the centre of an aeroplane propeller. It is now hung on the white wall over a panoply of Tuareg arms. Its reddish gold, dulled by the long caress of sand and the burning sun of Africa in the course of Laperrine's incessant expeditions across the Sahara, threw a golden aureole into the room. In gazing on it we recalled the drama which took place from February 18th to March 5, 1920, on the black *reg* which borders the terrible Tanesrouft.

Carried away by the storm, the aeroplane which bore General Laperrine, Adjutant Bernard and the mechanic Vaslin, flew out of its route and capsized on landing. Laperrine had his left collar-bone broken, a rib crushed, and grave internal contusions. His two companions also suffered from contusions.

Where were they? The three men did not know. All around them was the immense solitude. They inspected their stores. By close rationing it might have been enough to enable them to wait for help, but their water reserve amounted to only 5 gallons while the thermometer showed 123° F. under the wings of the aeroplane, and the wounded man was burning with fever.

They decided to start out to meet the possible help on which their safety depended. The three men started towards the north-west, hoping to gain the mountains of Adrar. The first stage was one of five hours under a sun of lead, then they stopped at the bottom of a wad. They started again next morning, but the General, so familiar with the desert, in vain

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examined the horizon and bent over his maps. The day passed without finding any point by which their locality might have been identified. What was to be done? They had to go back to the aeroplane, for it was certainly towards that machine that search parties would converge. The return was made with great difficulty. Water ran short. The three shipwrecked mariners of space were tormented by thirst. No doubt they thought of the tragic fate of Colonel Lebœuf and Pilot de Chatenay, who died after a forced landing on the great eastern Erg in 1916.

The General suffered from his wounds even more than from thirst. When he reached the aeroplane, on the evening of the 22nd, he was at the end of his strength. Then his agony commenced; it lasted till March 5th, when Laperrine died heroically without a complaint. His last words were, "Children, people think they know the Sahara, and they think that I know it. Nobody knows it. I have crossed it ten times and have perished on the eleventh."

That is the phrase that rings in our ears as we gaze at the gold-embroidered képi on the white wall over a panoply of Tuareg arms. Can we, with the aid of our valiant caterpillar cars, have at last conquered the hostile desert and made the recurrence of such dramas impossible in future?

After dinner we had a social evening on the terrace of the bordj. The beautiful Smana came to play the amzad and chant her improvised poems. She celebrated our crossing of the Tanresouft, our arrival in the Hoggar; then she chanted war songs and songs of love to the accompaniment of her primitive violin.

We were sitting on a thick carpet. Smana sat in

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front of us in an attitude full of ease and grace. Her jewels shone with the light of the stars and her voice was of astonishing purity. In the distance the peaks of the Hoggar threw their massive profiles upon the sky. It seemed to us as if we were living in a scene of the "Atlantide." But no, Smana has not the perverse soul of Antinea, and it is without any cruel *arrière pensée* that she gave to one of us her amzad, saying to him : " In giving you this violin I give you all my soul."

This afternoon we had communed with the heroic spirit of the Hoggar, now we communed with its poetic and melodious soul.

February 21st.—In the first light of the day we departed by camel towards the high mountains which rise to the north-east of Taman Rasset. We were surrounded by some Tuareg nobles and accompanied by Lieutenant Vella. During the expedition the Lieutenant told us about the character and customs of the inhabitants and related some anecdotes which would not be out of place in old romances of chivalry, as may be seen from the following story :

Some years ago, about 1895, a *rezzi* of a hundred men of the Hoggar had gone to pillage the Oulimindens near Timbuctoo. As they were going back with their booty, a negress escaped during the night. Moussa Ag Amastane went in pursuit with his brother Belloud. They met some fifty Oulimindens, whom they engaged in battle. The brother of Moussa was killed and Moussa himself had both his thighs pierced by a lance, but succeeded in escaping. On his return to the Hoggar he collected 500 warriors and went to

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avenge his brother. The Oulimindens mustered more than 1,000 strong when he came upon them, but he did not hesitate to engage them. The Hoggar men killed 200 of their enemies and wounded a large number, and then returned to their mountains. Moussa was satisfied at having avenged the death of his brother Belloud so well.

At the foot of an enormous granite cliff rising vertically from a dark gorge where some fifty veiled Tuareg advanced with the rhythmic swing of their great white camels, carrying their bucklers and lances, that page of the heroic chronicle of the desert became almost epic.

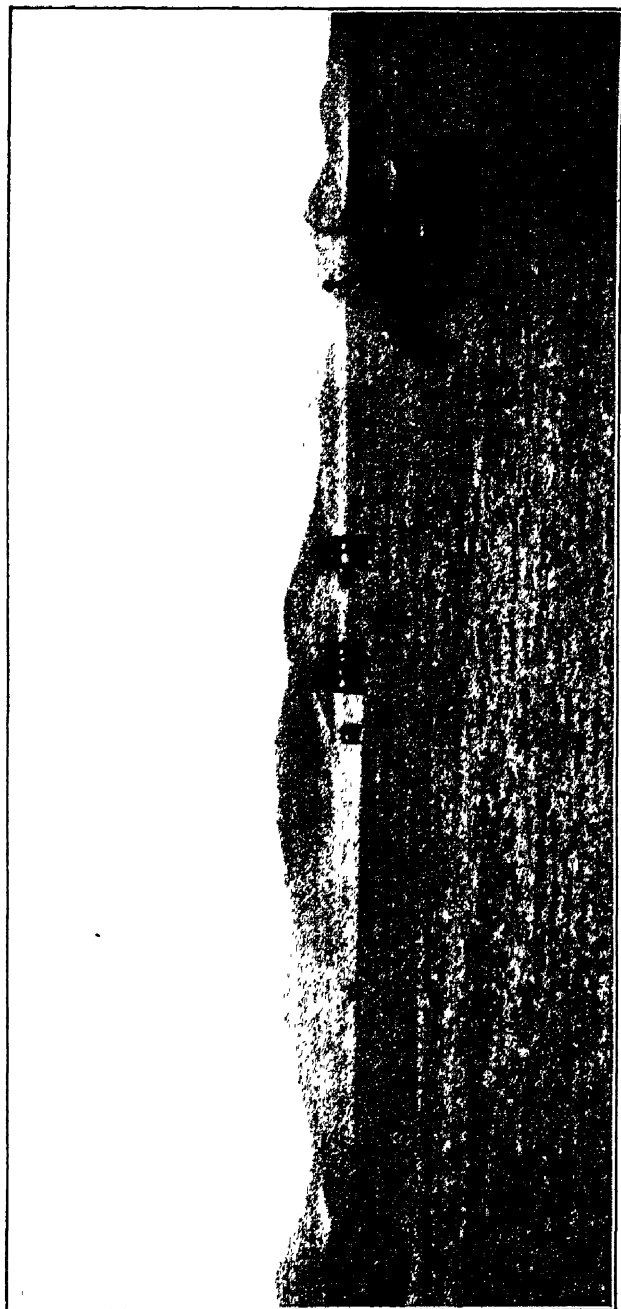
We returned at noon and after lunch made our preparations for departure.

At 4.45 we left the bordj and went to lay on the graves of General Laperrine and Father de Foucauld a scarf of tricoloured ribbon on which the solemn homage of the mission had been embroidered. It was our last act in the Hoggar.

5 p.m.—We pushed forward into the splendid mountains, which were already enveloped in twilight. In the mountain passes at the foot of the wild rocks we found tufts of *aftazel*, small crucifers whose blossoms resembled those of our periwinkles. The evening was already so dark that we did not know which were the most violet-coloured, the mountains or the flowers.

Night fell. We arrived at Tit at 9 p.m. Great fires were lighted by the Imrad Tuareg. We slept in small reed huts.

February 22nd.—We departed from Tit at 4 a.m. The soil was hard, and then became gritty. At sunrise



THE MEMORABLE MEETING.

Facing p. 242.

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the spectacle was imposing, the mountains detaching themselves from a Turner sky. In the evening we camped in a wide valley on the border between the Hoggar and the Mouydir. As it was not very cold, we decided to sleep under the stars.

February 23rd.—We started at 5.45 a.m., making for the north and passing Tesnou in the afternoon. Towards evening we reached Meniet. It was a pretty village where some Tuareg women of the Mouydir were camping in the shade of a great *lethel*. They had come with their asses to get water at the well.

We then rolled along a nice plateau dominated on all sides by mountains with extraordinary shapes, some of them resembling apocalyptic beasts or giants. Towards the south, the gravel covering the ground took a greenish tone which contrasted very prettily with the blue and violet mountains.

At the 210th mile from Tit we entered upon a new route which had never been followed until then. The old route went direct to Amzir and to the gorges of Arrak, whereas the new route passed around the great mountains of Mouydir by the west.

The ground was very good. We passed close to the mountains and turned due south, afterwards turning north again. We had some bad passages which somewhat delayed our advance.

Towards nine o'clock we were obliged to halt because everybody was very tired. The drivers were going to sleep at their wheels. It was hot, and we thought it useless to put up the tents. We slept under a ceiling of starry sky, where the southern cross

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appeared for the last time on the horizon at three o'clock in the morning.

Next morning we started before daylight. About 8 a.m. we debouched into the wide valleys of the Mouydir. Two Chaamba camelmen suddenly appeared before us. They had left the wells of Tadjmout the night before to meet us. They told us that three cars had arrived that night at the wells of Tadjmout and two more were expected. In those cars, they said, there was a *m'ra beida* (a white woman, a French-woman). We had no doubt that this was the party of André Citroën.

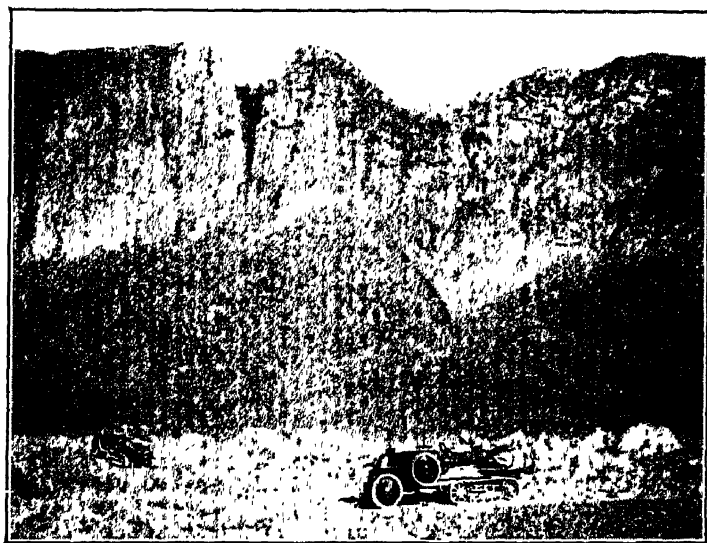
The graceful term *m'ra beida* employed by our Chaamba informants no doubt denoted Madame André Citroën, the fearless traveller, who did not hesitate to accompany her husband so far into the desert.

Wherever we arrived we made a point of appearing as if we were descending in the Bois de Boulogne from a comfortable touring car, so we halted and used our last drops of water for our toilet. We started again clean-shaven.

11 a.m.—We were a mile and a half from the wells of Tadjmout. We could not see anything stirring, but soon we perceived silent forms gliding mysteriously behind the tall *lethels*. Suddenly a car bounded from the massive verdure growing round the well and another followed. They were two caterpillar cars of the sporting torpedo type, and they came towards us. We recognised in one of them Monsieur and Madame Citroën and their mechanic Guégan, and in the other Kégresse and his mechanic Ferraci. The cars stopped several yards from us, and we rushed forward and



M. AND MME. CITROËN AND THE AUTHORS.



THE CITROËN PARTY IN THE MOUYDIR MOUNTAINS.

Facing p. 244.



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embraced. General emotion, which we cannot describe ; all we can say is that we lived through one of the most joyous hours of our existence.

M. Citroën had thought of everything. He had even brought us the mail from France. It was too much. Our eyes went dim. We had to sit down on the sand. Was it because we wanted to read our letters, or was it because excessive joy obliged us to do so ? The mechanics were not forgotten. M. Citroën warmly congratulated our devoted assistants, who listened in silence though they were proud and happy. The originator of the mission found the words which reached their hearts, and when the champagne sparkled once more for the last toast, proposed by M. and Madame Citroën, we knew that they considered themselves amply rewarded for all their exertions.

The hour was very pleasant for us on our return from the solitudes of the great South.

We started again about 11.30, as soon as the Citroën party went ahead of us. We shall rejoin them to-morrow morning at the wells of Tighelghemine. The sporting cars with their light frames had greater speed. They had covered in 36 hours the 470 miles of the stage, Wargla to In Salah.

After crossing the mountains and traversing a wide wed we arrived in the immense plain of Tidikelt. An icy wind blew strongly there, and we were perished with cold as we camped that night 10 miles from In Salah. Where were our hot nights of the Niger ?

February 26th.—We rejoined the Citroën party about half a mile from In Salah, where we made a truly triumphal entry. The walls of the bordj were

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decorated with tricolour flags, and triumphal arches had been erected on our route. Surrounded by camelry, our seven caterpillar cars advanced in order. Galloping on a magnificent stallion at the head of his *goumiers*, Captain de Saint-Martin came to shake hands with us and to congratulate us on our return. A little farther on, Commandant Duclos, commander-in-chief of the territories of the oases, awaited us. We were pleased to see this fine officer, who is also a distinguished literary man and who had taken such a cordial farewell of us at the foot of the Gara Krime. He greeted us in the name of the Governor-General of Algeria. All the Arab chiefs of the region were assembled round us, and we exchanged cordial salaams with them. There was a touching scene when General Estienne greeted his son.

In the afternoon there were races and great festivities in our honour. They were prolonged into the night, and as darkness fell we still heard for a long time the shrill sound of Saharian music mingling with the joyous shouts of the multitude.

February 27th.—Departure of the André Citroën party, who will precede us by several days to Paris.

February 28th.—Stop at In Salah to overhaul and lubricate the cars.

March 1st.—Departure in the early morning with Commandant Duclos, who will accompany us to Wargla.

We camped at night in a wad of the Tademait, 50 miles north of the gorges of Ain-Guettara, which we traversed without incident.

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March 2nd.—We arrived at Inifel about 10 p.m. and found dinner awaiting us at the new bordj. The evening was very agreeably spent, thanks to Commandant Duclos, whose astonishing knowledge of the Sahara we enjoyed. Commandant Duclos is a delightful story-teller. We made him promise to send us some anecdotes and legends which he tells with such liveliness and picturesque charm. He kept his promise, and thus enabled us to share with our friends the pleasure we had that evening when the table was cleared and pipes and cigarettes glowed among the shadows.

The following legend relates to the innumerable rites of witchcraft which are still honoured in the Sahara :

LEGEND OF BAHR TAIBA

(THE LAKE ON THE TRAIL TO FORT FLATTERS.)

It is said that two inseparable hunters having halted on the Erg El Wassur, one of them, who was a geomancer, started drawing signs on the sand in order to predict the future.

To his great astonishment the signs revealed to him that he would not go any farther, but that his companion would reach their camp alone. He told him about it, and his companion was greatly struck, but he mocked him and treated him as an impostor.

Their camels were browsing not far from them. Suddenly one of the animals started to eat the game which had been loaded on the other. The companion ran up to separate them, leaving his comrade absorbed in his geomancy. Suddenly the Erg on which the latter was standing gave way, and water spouted from the earth, forming a lake which swallowed up the geomancer. The other hunter was terrified, and drove the two camels before him to the camp, where he told the story.

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The lake still exists, and is called Bahr Taiba. The properties of the water differ according as to whether the water is taken from the edge of the lake or from the middle. On the edges it is limpid and sweet (hence the name Taiba), while in the centre it is saturated with salt and saltpetre, and is quite undrinkable. The natives moisten a rag in that water, dry it, and use it as tinder for lighting fires.

Here are some stories of marabouts which are worthy of a good place in a "Golden Legend" of Sahara Islam :

LEGEND OF THE MIRACLE OF THE MARABOUT SIDI BEN SASSI BEN MOHAMMED KHEDIME ALLAH, ANCESTOR OF THE OULAD BEN SASSI, FRACTION OF THE BENI THOUR

This marabout made a great reputation for sanctity, and lived peaceably in his Zowia (a religious establishment), which was near the Rouissat and the Kouba where he was buried.

One morning, three Chaamba Ben Saïd, quite out of breath, rushed up to him and implored his help against four men of the Saïd Otba who were pursuing them to carry out a revenge.

The latter arrived at the Zowia. The marabout went to meet them and asked them what they wanted. They then demanded the three Chaamba with whom they wanted to settle an old quarrel.

The marabout consented to hand over the fugitives to them after making them swear on oath not to do them any harm. The Saïd Otba, having given their word that they would practise no cruelty against the persons they claimed, Sidi Ben Sassi handed over to them the three Chaamba, who were at once seized by the hair and killed like sheep under the eyes of the marabout.

Sidi ben Sassi was furious, and retired to his Zowia, where he raised his eyes to heaven and called down imprecations and curses on the assassins who had broken their word and had had no regard or consideration for himself.

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The four Saïd Oṭba, who had started on their way back, found to their great stupefaction, even before they had rejoined their camp, that they had been changed into women, with all the graces and attributes of the female sex.

They arrived in great confusion in their camp, and told all their misadventures to the marabout Sidi Mohammed ben Ali of Milians, who was making a tour of *ziara* (that is, a collection of offerings) in their tribe. He told them that they were the victims of an evil destiny imposed upon them by the marabout Sidi ben Sassi, whom the miracle proved to be a great saint.

He then took the four culprits, bound their hands behind their backs, put a dagger between their teeth, and took them with many offerings to his colleague, the marabout Sidi ben Sassi.

As a punishment, he had them dragged through the dust into the presence of the marabout and interceded in their favour.

Sidi ben Sassi laid his hands on their heads and shoulders, and praying to Allah, gave them back their original sex.

Since that time, the septs Amarat and Beni Mansour of the Saïd Oṭba, to whom the culprits belonged, pay every year a compulsory offering to the descendants of the marabout : the Oulad ben Sassi of the tribe of the Beni Thour.

There is another legend, the legend of Ben Baarour, the " pathfinder " :

Ben Baarour was a man of the ancient times and of unknown origin. It is said that he lived at the time of the first Arab invasion, and that he was then regarded as a saint.

It is said that one day Ben Baarour, still young, consulted a geomancer. The latter revealed to him that he would be an astrologer and a remarkable guide, and would become very famous by creating trails, a work for which all Saharans and travellers would bless him, but that sooner or later he would be killed by a camel of the " Garsh " age (seven or eight years).

Now, at the end of a certain time, Ben Baarour set himself to cut a big stone in the shape of a roller which he attached to

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a camel with chains, and he set out to trace paths. But as he had been warned of the fate in store for him, as soon as the camel was on the point of reaching the "Garsh" age, he sold it and bought a younger one. He thus passed through the Sahara with his roller in every direction, marking his passage with a large number of trails. All of them were followed by caravans whose incessant passage made them permanent.

Thanks to his important work, Ben Baarour became very famous, and acquired the surname of Ben Baarour Sekkat et Touroug; that is to say, "Ben Baarour, the pathfinder."

His reputation is known to all the Saharans of our day, who quote him as a model desert guide.

He went on creating new trails till the day he found himself near El Golea (about twenty-five miles away). He was just breakfasting near his camel when he found that the latter had fangs and had therefore become "Garsh." He remembered the revelation which had been made by the geomancer, and ran away in terror towards the "Gara" (a small plateau), where he expected to be in safety, but his camel pursued him at top speed, and caught him at the foot of the "Gara" and killed him.

Ben Baarour was buried on that "Gara" which bears his name ever since: Garet Ben Baarour.

The rollers employed by that man are strewn over the *bled*, and still exist. One of them is found on the trail between Wargla and Ghardaia at a point called Larmah, and is called Ben Baarour's stone.

The people of old times said that when that stone reaches Ghardaia, that town will be abandoned and deserted. That rumour, repeated from mouth to mouth, is well known in our days, and the travellers going to Ghardaia, when they see the big stone, roll it some yards in the direction of the capital of Mزاب, hoping that one day it will reach it and will force the Mozabites to abandon the town. But the latter in their turn, who also know the legend, push the stone in the opposite direction towards Wargla in order to remove it from their country.

That stone is also called "Hadjiet Abazni" (stone "take-me").

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Another roller called "Hadjiet ben Baarour" is found near Fort Flatters at a point called El Baïedh.

Another is known between Owllegui and Ain Sakki on the Medjebed (Ilgou trail from Gadames to Tuat). It has the same name, "Hadjiet ben Baarour."

There is yet another at Djorf El Bagra on the Wargla-El Golea trail, and at Medhak'Ba, close to the spot where he died.

In 1917 an auto-tractor at Wargla which made the journey to In Salah for the first time was called "Ben Baarour" by the natives, and the famous name was inscribed on the vehicle by the authorities.

March 3rd.—The next stage was accomplished without incident, in spite of the difficulties of the route, which were greatest among the dunes of Kheshaba, where the wind and sand had completely effaced the traces of our first passage.

March 4th.—At 10 a.m. we reached the well of Hassi Jemel. The day was monotonous. We rolled along, sometimes on sand, sometimes on a more or less compact *reg* striated with bright streaks of calcareous deposits.

With the twilight came a great cold wind from the north, raising thick whirls of sand and sweeping ragged clouds over a pale blue sky, a true northern sky. The clouds, at intervals, covered the moon.

The aspect of the desert changed from one moment to the next in a striking manner. Sometimes it looked like a motionless lake without shores, with an impalpable mist floating over it. Again it would be a nightmare country strewn with opaque walls.

About 10 p.m. we perceived on our right the outline of the Gara Krima. It looked at that hour

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like a phantom, that rocky truncated pyramid which had seen us start for the Niger on a sunny morning of December.

We camped 4 miles from Wargla, at the foot of a dune which protected us somewhat from the icy wind, but not from the whirls of sand which enveloped us.

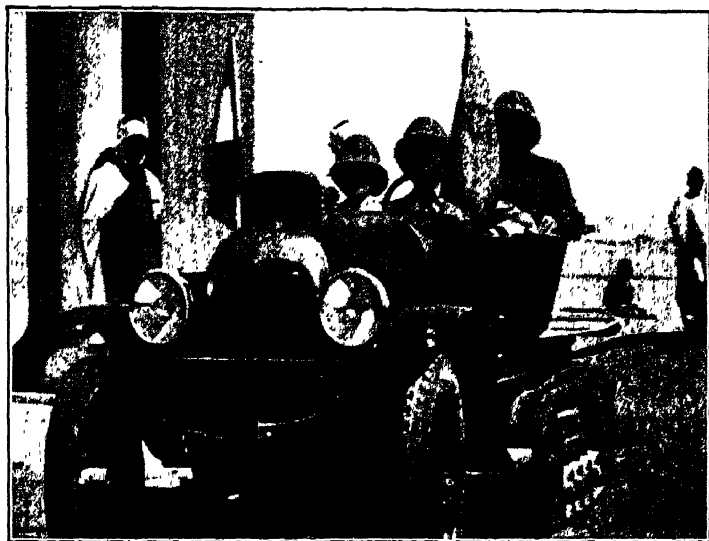
March 5th.—Wargla gave us an unforgettable welcome.

There was splendid weather, in spite of the strong east wind which whistled in the palms and the sand blowing off the crests of the dunes.

Lieutenant Brunet, with his fine ascetic head crowned with hair prematurely bleached by the Saharian sky in the service of France, met us at the head of his 500 meharists. The camelry opened out on reaching us and escorted us to the old *ksar* of Rouissat standing at the entrance of Wargla, where Captain Belvalette awaited us, surrounded by his officers and great Arab chiefs dressed in their finest burnous. They were all there : those who saw us depart in December and whose sincere good wishes accompanied us, Kaïd Adda ben Baaj of the Saïd Otba, Kaïd M'amed ben Kaddour of the Chaamba bou Saïd, Ali ben Mouissa, chief of the Magzen, and Kaïd Ahmed ben Hakkoum of the Guebala Chaamba.

All were pleased with our success, which in their eyes confirms the might and greatness of France.

There remained a pious duty to perform : to do homage for this success to those who first showed the way, Colonel Flatters and his companions, who fell tragically near the wells of Tadjmout in 1881.



M. AND MME. CITROËN LEAVING IN SALAH.



GENERAL ESTIENNE AND M. KÉGRESSE.

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A column raised on the *souk* of Wargla commemorates their deeds. We approached it, and while we defiled slowly before the funeral stele, it seemed as if a voice arose from the African soil and told us : " I am well pleased with you."

That voice from the dead was soon joined by voices from the living. In the afternoon, under the immense tent of Kaïd Adda, which had already sheltered us on our first passage, Commandant Duclos made the following speech :

" On December 17th last year, Wargla was in an uproar. It had heard that the trans-Saharan raiders had left Touggourt. From midday onwards, burnoused horsemen, high-saddled meharists, ass-drivers often riding double, banners, black fantasia-dancers on foot, a whole joyous crowd flocked towards the camp of the Saïd Otba. The day was magnificently clear, and at the horizon, towards Touggourt, the dunes floated in light. Suddenly on their buff outline five black points became visible, glided along the slopes and resolved themselves into a nimble caravan. A few minutes afterwards, the five caterpillar cars, already gilded by the setting sun, stopped in front of us. It was a fine sight, which will remain engraved on the memory of those who had the good fortune to be present. It will mark for them a new era in the conquest of the Sahara, the victory of French industry over the Saharan sand.

" There was gunfire, tom-tom, and you-yous. A *nouba* attempted the Marseillaise, and you, Monsieur Haardt and Monsieur Audouin-Dubreuil, were pleased to appreciate the joyous tumult.

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“ All Wargla had put its heart into the festivities. Its wish was that on the threshold of the immensities you were about to face the farewell of civilisation should not be lacking to you, any more than the ship crossing the bar lacks the waving of white handkerchiefs. We were not in ignorance of the reserves of energy concealed under your smiles, and we knew right well that to every new obstacle you would oppose the same inflexible will. But we also knew that your enterprise had its dangers, that Nature does not surrender without a struggle, and only yields to a master who can make her his slave. Wargla certainly did not doubt your success, but it also wished that in your inevitable hours of lassitude you might be comforted by the echo of our applause.

“ It is with the same heart, filled this time with relief and joy, that Wargla now welcomes the conquerors of this superb raid. With a full knowledge of the Sahara, where so many of its children have suffered from the hostility of Nature and man, Wargla followed the stages of the mission with passionate interest. With them it crossed the Hoggar, plunged into the Tanesrouft, and reached the Niger, and with enthusiasm it commented on the telegram with which the President of the Republic greeted its memorable entry into Timbuctoo. To-day, in welcoming the mission like a friend returning after a perilous voyage, it is proud to have a claim to give them a particularly warm reception.

“ If it is true, gentlemen, that the greatness of memories clinging to certain places is a measure of the efforts of successive generations, under what sky could the image of the past be more vivid than under



THE RETURN TO WARGLA.

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ours, and where could the value and significance of your exploit be better understood?

"At the foot of these walls, then marred by a swampy ditch, Wargla saw, half a century ago, the assembly of the two Flatters missions. From the same point, probably, the old men who admired the impressive return of the caterpillars had watched, while yet children, the passing of the first and second caravans, and they remembered another return, that of the fearful phantoms escaped from the massacre of Tadjmout.

"Twenty years later, under the palm-trees of Rouissat, an immense assembly of camels indicated a great enterprise. Foureau and Lamy had put up their camp there, and on October 23, 1898, they departed for the Soudan, which it took them two years to reach, and where Lamy was to fall sword in hand.

"Since that heroic epoch, many other caravans, other convoys, other goums, and other columns have passed in the direction of that Gara Krime behind which they disappeared in turn, their hearts filled with the resolute will of a Flatters, a Foureau, a Lamy, a Laperrine, and your own, sirs, of December 18th, the resolution to join Mediterranean and Central African France. Those who died in the attempt, and those who, for lack of sufficient means, did not realise their dream, those which Wargla saw depart and whose return it did not celebrate, all those noble dead are among us here to-day, and among the scenes they so often contemplated, their misty shades find their supreme appeasement. France has not left their work unfinished. Her inventors, her captains of

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industry, her men of action, have continued their task and have brought it nearer to its achievement.

"The caterpillar car has subdued the desert. Through its aid the aeroplane and the railway will come. Their triple and fruitful alliance will push the frontiers of the mother-country beyond the Equator as far as the Congo."

Those words of Commandant Duclos will remain for ever engraved on our memories. Too much touched to venture on a reply, we could only shake hands with him who had pronounced them.

Next day, March 6th, in the night, the mission arrived at Touggourt, whence we had started on December 17th for Timbuctoo.

And now one of our five caterpillar cars, the "Scarabée d'Or," is resting at the Invalides, in the Army Museum, from its long voyage across the great desert.

